```
a cag gac gct gta gct tca aaa atc tta gga ttg cct acg cag act gtt 49
  Gln Asp Ala Val Ala Ser Lys Ile Leu Gly Leu Pro Thr Gln Thr Val
                                       10
gat tca tca cag ggt tct gaa tat gac tat gtc ata ttc aca caa act
                                                                    97
Asp Ser Ser Gln Gly Ser Glu Tyr Asp Tyr Val Ile Phe Thr Gln Thr
            20
                                 25
act gaa aca gca cac tct tgt aat gtc aac cgc ttc aat gtg gct atc
Thr Glu Thr Ala His Ser Cys Asn Val Asn Arg Phe Asn Val Ala Ile
aca agg gca aaa att ggc att ttg tgc ata atg tct gat aga gat ctt
                                                                  193
Thr Arg Ala Lys Ile Gly Ile Leu Cys Ile Met Ser Asp Arg Asp Leu
                         55
tat gac aaa ctg caa ttt aca agt cta gaa ata cca cgt cgc aat gtg
                                                                  241
Tyr Asp Lys Leu Gln Phe Thr Ser Leu Glu Ile Pro Arg Asn Val
                    70
                                         75
gct aca tta caa gca gaa aat gta act gga ctt ttt aag gac tgt agt
                                                                  289
Ala Thr Leu Gln Ala Glu Asn Val Thr Gly Leu Phe Lys Asp Cys Ser
                                     90
aag atc att act ggt ctt cat cct aca cag gca cct aca cac ctc agc
                                                                  337
Lys Ile Ile Thr Gly Leu His Pro Thr Gln Ala Pro Thr His Leu Ser
            100
                                 105
                                                     110
gtt gat ata aaa ttc aag act gaa gga tta tgt gtt gac ata cca ggc
                                                                  385
Val Asp Ile Lys Phe Lys Thr Glu Gly Leu Cys Val Asp Ile Pro Gly
        115
                             120
ata cca aag gac atg acc tac cgt aga ctc atc tct atg atg ggt ttc
                                                                  433
Ile Pro Lys Asp Met Thr Tyr Arg Arg Leu Ile Ser Met Met Gly Phe
                        135
aaa atg aat tac caa gtc aat ggt tac cct aat atg ttt atc acc cgc
                                                                  481
Lys Met Asn Tyr Gln Val Asn Gly Tyr Pro Asn Met Phe Ile Thr Arg
145
                    150
                                         155
gaa gaa gct att cgt cac gtt cgt gcg tgg att ggc ttt gat gta gag
                                                                  529
Glu Glu Ala Ile Arg His Val Arg Ala Trp Ile Gly Phe Asp Val Glu
                165
                                     170
ggc tgt cat gca act aga gat gct gtg ggt act aac cta cct ctc cag
                                                                  577
Gly Cys His Ala Thr Arg Asp Ala Val Gly Thr Asn Leu Pro Leu Gln
            180
                                185
cta gga ttt tct aca ggt gtt aac tta gta gct gta ccg act ggt tat
                                                                  625
Leu Gly Phe Ser Thr Gly Val Asn Leu Val Ala Val Pro Thr Gly Tyr
        195
                            200
                                                 205
gtt gac act gaa aat aac cta
                                                                  646
Val Asp Thr Glu Asn Asn Leu
    210
                        215
```

FIG. 1

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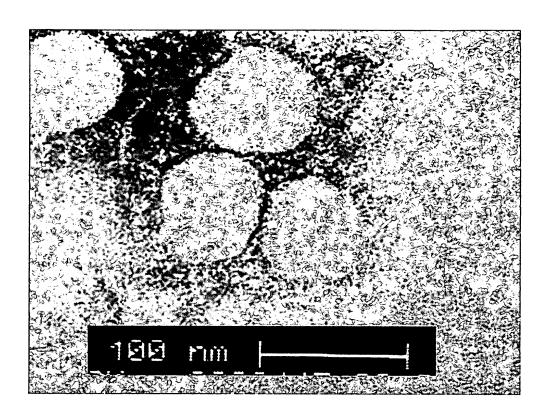


FIG. 2

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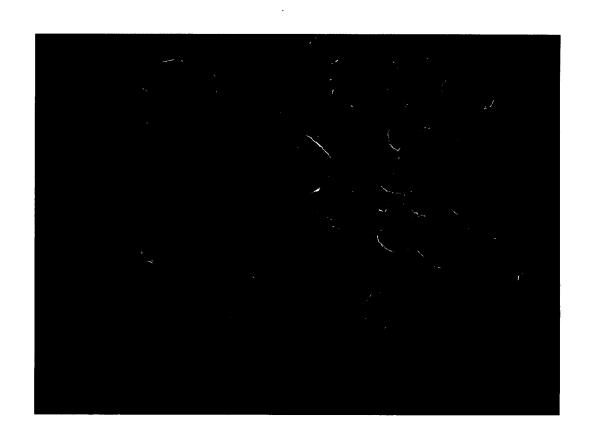


FIG. 3

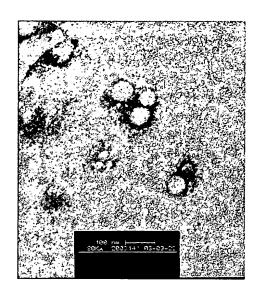


FIG. 4

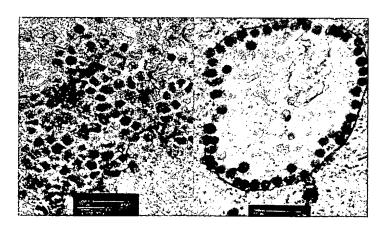


FIG. 5A

FIG. 5B

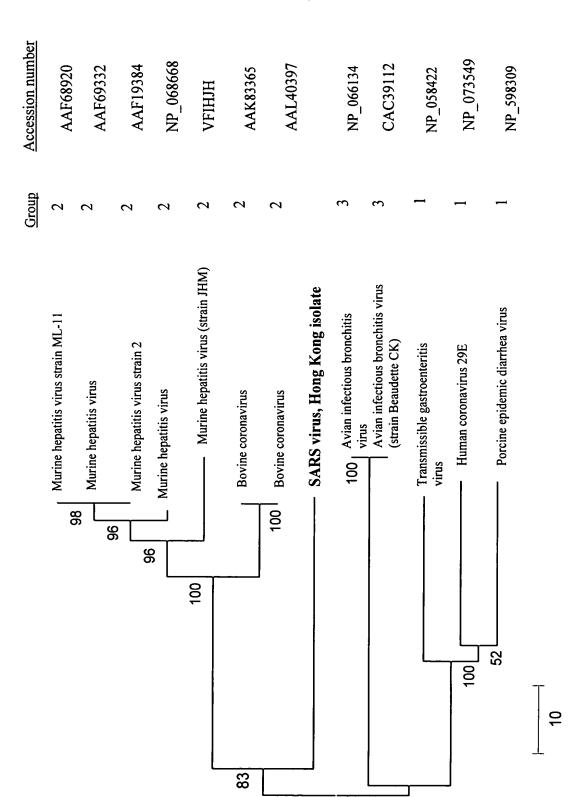


FIG. 6

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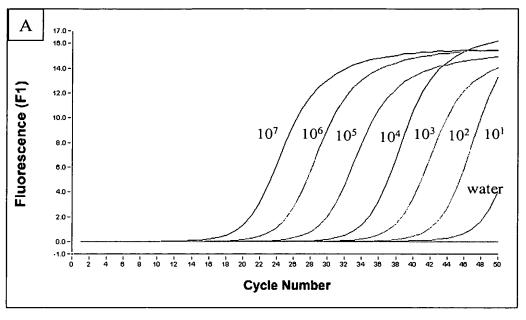


FIG. 7A

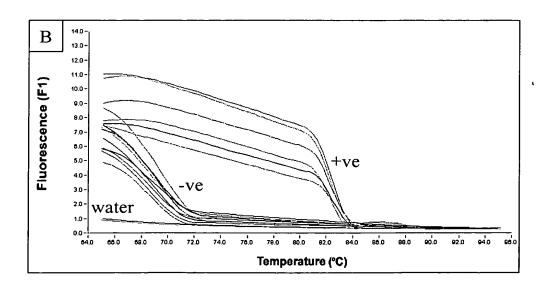


FIG. 7B

									la A					tt gat he Asp 5	49
							_	_		_		_	act Thr	_	97
													gaa Glu		145
													ctt Leu		193
-				_			-		_				gcc Ala		241
_		_	-					_		-			aat Asn 95		289
													gga Gly		337
											_	-	tta Leu	-	385
													tgc Cys		433
													gca Ala		481
	_				 _	_	-	-				-	aat Asn 175		529
				gct				cct					aac Asn		577
													tca Ser		625
													gaa Glu		673

	cac His															721
	att Ile			_	_		_		-	_	_			_		769
	caa Gln															817
	gca Ala	_		_					_	-	-	_	_			865
	ggt Gly 290					_	-					_	-	_		913
	ttc Phe	_		-			_	_	_						-	961
-	atg Met			-	- ,				_	_				~		1009
	caa Gln															1057
	cgt Arg		_	_						-	_			_		1105
	act Thr 370															1153
	aca Thr		_			-	-	-	_				_	_		1201
gaa	aat	aac	cta			(Glu <i>I</i>	Asn A	Asn 1	Leu						1213

GIU ASII ASII Let

FIG. 8 Con't

С				tg c et P	ro A								et A							eu .		49
-				aac Asn 20		_		_			u S			_				r A				97
				tgt Cys				al I							1 M							145
				gtt Val			_	íy d							y F	•	_					193
	a			aat Asn	_	-	al P					_		-	_			_				241
				ctt Leu							уА							рL				289
				cta Leu 100	Glı						r G							g A				337
				cat His				al A							a T							385
				aţg Met			e L			_	_		-	-	1 V	-	_					433
	r			gcg Ala			n G							Il							S	481
				tat Tyr		G1					l P						Al	a L				529
_	-			act Thr 180	-						y P			-			_	s S			-	577
				cta Leu				ln G							1 T							625
		_		tca Ser	_		e L	_	_	_	_	_	-		e V		_	_				673
	1			atg Met			s L		ga	tt	g a	aa	ggt	tc	c g	tg	tc	a c	tg	gc.	t	721
at	t	gat	αc																			729

```
1 atattaggtt tttacctacc caggaaaagc caaccaacct cgatctcttg tagatctgtt
   61 ctctaaacga actttaaaat ctgtgtagct gtcgctcggc tgcatgccta qtgcacctac
  121 gcagtataaa caataataaa ttttactgtc gttgacaaga aacgagtaac tcgtccctct
 181 totgoagact gottacqqtt toqtocqtqt tqcaqtcqat catcaqcata cotaqqttto
 241 gtccgggtgt gaccgaaagg taagatggag agccttgttc ttggtgtcaa cgagaaaaca
 301 cacqtccaac tcagtttgcc tgtccttcag gttagagacg tgctagtgcg tggcttcggg
 361 gactctgtgg aagaggccct atcggaggca cgtgaacacc tcaaaaatqq cacttqtqqt
 421 ctagtagage tggaaaaagg cgtactgccc cagettgaac agecetatgt gttcattaaa
 481 cgttctgatg ccttaagcac caatcacggc cacaaggtcg ttgagctggt tgcagaaatg
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 601 gaaaccccaa ttgcataccg caatgttctt cttcgtaaga acggtaataa gggagccggt
 661 ggtcatagct atggcatcga tctaaagtct tatgacttag gtgacgagct tggcactgat
 721 cccattgaag attatgaaca aaactggaac actaagcatg gcagtggtgc actccgtgaa
 781 ctcactcgtg agctcaatgg aggtgcagtc actcgctatg tcgacaacaa tttctgtggc
 841 ccagatgggt accetettga ttgcatcaaa gatttteteg cacgegggg caagtcaatg
 901 tgcactcttt ccgaacaact tgattacatc gagtcgaaga gaggtgtcta ctgctgccgt
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1021 acaccetteg aaattaagag tgecaagaaa tttgacaett teaaagggga atgeceaaag
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1861 ctgtgtggtt ttccctcaca ggctgctggt gttatcagat caatttttgc gcgcacactt
1921 gatgcagcaa accactcaat tcctgatttg caaagagcag ctgtcaccat acttgatggt
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2041 aacagtgtca ttattatggc atatgtaact ggtggtcttg tacaacagac ttctcagtgg
2101 ttgtctaatc ttttgggcac tactgttgaa aaactcaggc ctatctttga atggattgag
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3241 ccagaaccag aacctacacc tgaagaacca gttaatcagt ttactggtta tttaaaactt
3301 actgacaatg ttgccattaa atgtgttgac atcgttaagg aggcacaaag tgctaatcct
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	tatgaaaatt					
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	tctttccttg					
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	tatacacttg					
	ccttcagaag					
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	gccataatgg					
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	caggctacaa					
	acaaagccag					
	atggacaatc					
	accatacaga					
	atacttaaac					
	atggctgctt					
	gccttaggtt					
	agtaaaattt					
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	aattatgtga					
	ttaagtattt					
	aattttggtg					
	gttactacta					
	gactcccttg					
	ctagacttga					
	aaattcttt					
	agtcatttca					
	cccgtttctg					
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7441	aatcgtgcca	cacgcgttga	gtgtacaact	attgttaatg	gcatgaagag	atctttctat
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	tctgcttctg					
	cttgtatcaa					
	gacacctttt					
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	gctgcccgac					
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	aaagactaca					
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	gtaacaactt					
	atttgcctat					
	ggagttttct					
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	ttcaccaatg					
	gtgccttttt					
	ttctttaaca					
	gaggaggctg					
	gagacactgt					
	tatttcagtg					
	aaggctctaa					
	tcaatcactt					
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		atctgctcat				
		gtgttattgg				
		ctaagacacc				
		catgctacaa				
		ttaaaggttc				
		gcgtgtcttt				
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		ttgttagaca				
		ctcatcattg				
		agtggtcact				
		tggcaattgc				
		ttctgttacc				
		gggtgatgcg				
		ttaaggattg				
		ctgtttatga				
		acaaagtcta				
		ctgtaacctc				
		tgtttgtgtg				
		tcatgcttgt				
		tactcaaccg				
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		agcttaacat				
		agtctaaaat				
		ttagagtaga				
		ttcttgcaaa				
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		ctactcttca				
		ctgcccagga				
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		agcttgataa				
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		cctacaagaa			_	_
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		caccaaattt				
		tacagaataa				
		cacaaacagc				
		ggtttgtgct				
		gtgatggtac				
		caccaaaagg				
		gaggtatggt				
		aagtacctgc				
		catataagga				
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13261	tgtgctaatg	acccagtggg	ttttacactt	agaaacacag	tctgtaccgt	ctgcggaatg
		atggctgtag				
13381	gcatcaacgt	ttttaaacgg	gtttgcggtg	taagtgcagc	ccgtcttaca	ccgtgcggca

			/			
		tactgatgtc				
13501	gttttgcaaa	gttcctaaaa	actaattgct	gtcgcttcca	ggagaaggat	gaggaaggca
		ctcttacttt				
13621	agactattta	taacttggtt	aaagattgtc	cagcggttgc	tgtccatgac	tttttcaagt
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13741	tggctgattt	agtctatgct	ctacgtcatt	ttgatgaggg	taattgtgat	acattaaaag
13801	aaatactcgt	cacatacaat	tgctgtgatg	atgattattt	caataagaag	gattggtatg
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		agataatcag				
		aggctgcgga				
		gactagggca				
		gtgggatttg				
		taaatattgg				
		ccttcattgt				
		accactagta				
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		tttcaaggaa				
		attgctagat				
		tcaaactgtc				
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		cgctgctatc				
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		taaatggggt				
		tttcgcgtat				
		cattagtgca				
		aaatagacag				
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		tgatgtagaa				
		taacatgctt				
		cttatcacac				
		catgtgtggc				
		tgcttatgct				
		tctttcaact				
		ctatgagtgt				
		ttacctgcgt				
		cagtaactat				
		ttatcaaaat				
		aggacctcac				
		gtacctgcct				
		tgtcaaaaca cccacttaca				
		cattagaaag				
		aactaatgat				
		acatacagtc				
		ttgcggtgcc				
		ttcaacatca				
		tgatgtcact				
		taagcctccc				
		cacatgtgta				
		taatgctggc				
		agaaacgctc				
		cgaagtactc				
		attgaacaga				
		tggagagtac				
TO / 4 T	aagtacagat	cygagagcac	uccccigaaa	aaygcyacta	cygcyacycc	gergegraca

FIG. 10 Con't

			15/94			
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		tagtgcacct				
		actcaacatc				
		aaagtactct				
		tgctctctat				
		tgccctatgt				
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		tgttttctgc aatctctatg				
		ctacgtctat				
		cacactagaa				
		catgttcctt				
		agtttatgac				
		ctacaaaggt				
		tgtaagagaa				
		taattcacag				
		atcacagggt				
		ttgtaatgtc				
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		caatgtggct				
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		gactgaagga				
		catctctatg				
		cacccgcgaa				
		tcatgcaact				
		tgttaactta				
		cagagttaat				
		taaaggcttg				
		gaaaggattg				
		aatgaagtac				
		aacttgcttt				
		ctatgtctat gagtaaccat				
		tatcatgact				
		tgaataccct				
		catggttgtg				
		tccaaaggct				
		gccatgtagt				
		cgataaattc				
		caatgcaatt				
19201	taccaggctg	tgatggtggt	agtttgtatg	tgaataagca	tgcattccac	actccagctt
19261	tcgataaaag	tgcatttact	aatttaaagc	aattgccttt	cttttactat	tctgatagtc
		tcatggcaaa				
		tacacgatgc				
		cttggatgca				
		tgatacttat				- '
		taatgttgtt				
		taataatgct				
19681	aaaataagac	aacacttcct	gttaatgttg	catttgagct	ttgggctaag	cgtaacatta
		agagattaag				
		ctacaaaaga				
10021	atactacat	tgccaagaaa	gtagagatt	ttagaaaaa	ccacttact	grettgtttg
		ggaaggacag agtcaaaggt				
		aattggagaa				
		acagttgcct				
20101			Janacetaet	Luccagag	cagagactta	gaggactica

			/			
			16/94			
20161	agcccagatc	acaaatggaa	actgactttc	tcgagctcgc	tatggatgaa	ttcatacagc
20221	gatataagct	cgagggctat	gccttcgaac	acatcgttta	tggagatttc	agtcatggac
20281	aacttggcgg	tcttcattta	atgataggct	tagccaagcg	ctcacaagat	tcaccactta
		ttttatccct				
		atcaaaatgt				
		gtcacaagat				
		ttcattcatg				
		aagtcaagcg				
		tcttgaaaag				
		gatgaatgtc				
		accctacaac				
		tacagetgtg				
		tgacttcgtc				
		taataaatgg				
		agagaatgac				
		agccctgggt caagcttatg				
		atcggaagca				
		ctataccatg				
		ctattcactc				
		tcttaaggag				
		cattagagaa				
		catgtttatt				_
		cacttttgat				
		ttactatcct				
		tccattttat				
		catacctttt				
		ttgggttttt				
		tactaatgtt				
		ttctaaaccc				
		tttcgagtac				
		acacttacga				
22081	ataagggcta	tcaacctata	gatgtagttc	gtgatctacc	ttctggtttt	aacactttga
		taagttgcct				
22201	ccttttcacc	tgctcaagac	atttggggca	cgtcagctgc	agcctatttt	gttggctatt
		tacatttatg				
		aaatccactt				
		ccagacctct				
		aaacttgtgt				
		ggagagaaaa			_	
		tttttcaacc				
22621	tttgcttctc	caatgtctat	gcagattett	ttgtagtcaa	gggagatgat	gtaagacaaa
		acaaactggt				
		ccttgcttgg				
		taggtatctt				
		ctcccctgat				
		ttatggtttt ttttgaactt				
		taagaaccag				
		ttcttcaaag				
		ttccgttcga				
		tgtaagtgta				
		tgttaactgc				
		catatattct				
		gcatgtcgac				
23461	gtgctagtta	ccatacagtt	tctttattac	gtagtactag	ccaaaaatct	attgtggctt

			, -			
23521	atactatgtc	tttaggtgct	gatagttcaa	ttgcttactc	taataacacc	attgctatac
		ttcaattagc				
23641	ccgtagattg	taatatgtac	atctgcggag	attctactga	atgtgctaat	ttgcttctcc
23701	aatatggtag	cttttgcaca	caactaaatc	gtgcactctc	aggtattgct	gctgaacagg
23761	atcgcaacac	acgtgaagtg	ttcgctcaag	tcaaacaaat	gtacaaaacc	ccaactttga
23821	aatattttgg	tggttttaat	ttttcacaaa	tattacctga	ccctctaaag	ccaactaaga
23881	ggtcttttat	tgaggacttg	ctctttaata	aggtgacact	cgctgatgct	ggcttcatga
23941	agcaatatgg	cgaatgccta	ggtgatatta	atgctagaga	tctcatttgt	gcgcagaagt
24001	tcaatggact	tacagtgttg	ccacctctgc	tcactgatga	tatgattgct	gcctacactg
24061	ctgctctagt	tagtggtact	gccactgctg	gatggacatt	tggtgctggc	gctgctcttc
24121	aaataccttt	tgctatgcaa	atggcatata	ggttcaatgg	cattggagtt	acccaaaatg
		gaaccaaaaa				
24241	aagaatcact	tacaacaaca	tcaactgcat	tgggcaagct	gcaagacgtt	gttaaccaga
		attaaacaca				
		tgatatcctt				
		aggcagactt				
		cagggcttct				
		aagagttgac				
		tggtgttgtc				
		gccagcaatt				
		tggcacttct				
		caatacattt				
		tgatcctctg				
		tcatacatca				
		cattcaaaaa				
		tgaccttcaa				
		cggcttcatt				
		tagttgttgc				
		ggatgactct				
		gatttgttta				
		aatgcttctc				
		cctttcggat				
		ataattgcgc				
		aatttactgc				
25561	tacaaataaa	gaggcgcaat	ttttatacct	ctatectte	atatattttc	tagaatgaat
		agaattatta				
		gatgccaact				
		agtgtcacag				
		gaagactacc				
		gttgtacatg				
		gacactggta				
25361	agacccaccg	aatgtgcaaa	acacacaac	cgacggetet	ctaggagttg	ctaatecage
26101	aatggattta	atttatgatg	ageegaegae	gactactage	gracerrate	aagcacaaga
		gaacttatgt				
		ctttttcttg				
		ttgtgtgcgt				
		tactcgcgtg				
		aactaactat				
		gtactattac				
		tcctattcct				
		tgtacataat				
		tgcttgctgt				
		gtattgtagg				
		cccgctcaat				
		ggacaattgt				
7087T	grgarcattc	gtggtcactt	gcgaatggcc	ggacactccc	Lagggcgctg	tgacattaag

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26881 gacctgccaa aagagatcac tgtggctaca tcacgaacgc tttcttatta caaattagga
26941 gcgtcgcagc gtgtaggcac tgattcaggt tttgctgcat acaaccgcta ccgtattgga
27001 aactataaat taaatacaga ccacgccggt agcaacgaca atattgcttt gctagtacag
27061 taagtgacaa cagatgtttc atcttgttga cttccaggtt acaatagcag agatattgat
27121 tatcattatg aggactttca ggattgctat ttggaatctt gacqttataa taaqttcaat
27181 agtgagacaa ttatttaagc ctctaactaa gaagaattat tcggagttag atgatgaaga
27241 acctatggag ttagattatc cataaaacga acatgaaaat tattctcttc ctgacattga
27301 ttgtatttac atcttgcgag ctatatcact atcaggagtg tgttagaggt acgactgtac
27361 tactaaaaga accttgccca tcaggaacat acgagggcaa ttcaccattt caccctcttg
27421 ctgacaataa atttgcacta acttgcacta gcacacactt tgcttttgct tgtgctgacq
27481 gtactegaca tacctateag etgegtgeaa gateagttte accaaaaett tteateagae
27541 aagaggaggt tcaacaagag ctctactcgc cactttttct cattgttgct gctctagtat
27601 ttttaatact ttgcttcacc attaagagaa agacagaatg aatgagctca ctttaattga
27661 cttctatttg tgctttttag cctttctgct attccttgtt ttaataatqc ttattatatt
27721 ttggttttca ctcgaaatcc aggatctaga agaaccttgt accaaagtct aaacgaacat
27781 gaaacttctc attgttttga cttgtatttc tctatgcagt tgcatatgca ctgtagtaca
27841 gcgctgtgca tctaataaac ctcatgtgct tgaagatcct tgtaaggtac aacactaggg
27901 gtaatactta tagcactgct tggctttgtg ctctaggaaa ggttttacct tttcatagat
27961 ggcacactat ggttcaaaca tgcacaccta atgttactat caactgtcaa gatccagctg
28021 gtggtgcgct tatagctagg tgttggtacc ttcatgaagg tcaccaaact gctgcattta
28081 gagacgtact tgttgtttta aataaacgaa caaattaaaa tgtctgataa tggaccccaa
28141 tcaaaccaac gtagtgcccc ccgcattaca tttggtggac ccacagattc aactgacaat
28201 aaccagaatg gaggacgcaa tggggcaagg ccaaaacagc gccgacccca aggtttaccc
28261 aataatactg cgtcttggtt cacagctctc actcagcatg gcaaggagga acttagattc
28321 cctcgaggcc agggcgttcc aatcaacacc aatagtggtc cagatgacca aattggctac
28381 taccgaagag ctacccgacg agttcgtggt ggtgacggca aaatgaaaga gctcagccc
28441 agatggtact tetattacet aggaactgge ceagaagett caetteeeta eggegetaae
28501 aaagaaggca tcgtatgggt tgcaactgag ggagccttga atacacccaa agaccacatt
28561 ggcaccegca atectaataa caatgetgee accgtgetae aactteetea aggaacaaca
28621 ttgccaaaag gcttctacgc agagggaagc agaggcggca gtcaagcctc ttctcgctcc
28681 tcatcacgta gtcgcggtaa ttcaagaaat tcaactcctg gcagcagtag gggaaattct
28741 cetgetegaa tggetagegg aggtggtgaa actgeceteg egetattget getagacaga
28801 ttgaaccagc ttgagagcaa agtttctggt aaaggccaac aacaacaagg ccaaactgtc
28861 actaagaaat ctgctgctga ggcatctaaa aagcctcgcc aaaaacgtac tgccacaaaa
28921 cagtacaacg tcactcaagc atttgggaga cgtggtccag aacaaaccca aggaaatttc
28981 ggggaccaag acctaatcag acaaggaact gattacaaac attggccgca aattgcacaa
29041 tttgctccaa gtgcctctgc attctttgga atgtcacgca ttggcatgga agtcacacct
29101 tegggaacat ggetgaetta teatggagee attaaattgg atgacaaaga tecacaatte
29161 aaagacaacg tcatactgct gaacaagcac attgacgcat acaaaacatt cccaccaaca
29221 gagcctaaaa aggacaaaaa gaaaaagact gatgaagctc agcctttgcc gcagagacaa
29281 aagaagcagc ccactgtgac tettetteet geggetgaca tggatgattt etecagacaa
29341 cttcaaaatt ccatgagtgg agcttctgct gattcaactc aggcataaac actcatgatg
29401 accacacag gcagatgggc tatgtaaacg ttttcgcaat tccgtttacg atacatagtc
29461 tactcttgtg cagaatgaat tctcgtaact aaacagcaca agtaggttta gttaacttta
29521 atctcacata gcaatcttta atcaatgtgt aacattaggg aggacttgaa agagccacca
29581 cattttcatc gaggccacgc ggagtacgat cgagggtaca gtgaataatg ctagggagag
29641 ctgcctatat ggaagagccc taatgtgtaa aattaatttt agtagtgcta tccccatgtg
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FIG. 10 Con't

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1 - ATATTAGGTTTTTACCTACCCAGGAAAAGCCAACCTCGATCTCTTGTAGATCTGTT - 60
   -I L G F Y L P R K S Q P T S I S C R S V
       * V F T Y P G K A N Q P R S L V D L F
      I R F L P T Q E K P T N L D L L * I C S
61 - CTCTAAACGAACTTTAAAATCTGTGTAGCTGTCGCTCGGCTGCATGCCTAGTGCACCTAC - 120
   - L * T N F K I C V A V A R L H A * C T Y
   - S K R T L K S V * L S L G C M P S A P T
     LNEL*NLCSCRSAACLVHLR
121 - GCAGTATAAACAATAATTATTACTGTCGTTGACAAGAAACGAGTAACTCGTCCCTCT - 180
   - A V * T I I N F T V V D K K R V T R P S
   - Q Y K Q * * I L L S L T R N E * L V P L
     S I N N N K F Y C R * Q E T S N S S L F
181 - TCTGCAGACTGCTTACGGTTTCGTCCGTGTTGCAGTCGATCATCAGCATACCTAGGTTTC - 240
   -SADCLRFRPCCSRSSAYLGF
   - L Q T A Y G F V R V A V D H Q H T * V S
     C R L L T V S S V L Q S I I S I P R F R
241 - GTCCGGGTGTGACCGAAAGGTAAGATGGAGAGCCTTGTTCTTGGTGTCAACGAGAAAACA - 300
   -V R V * P K G K M E S L V L G V N E K T
   - S G C D R K V R W R A L F L V S T R K H
      PGVTER*DGEPCSWCQRENT
301 - CACGTCCAACTCAGTTTGCCTGTCCTTCAGGTTAGAGACGTGCTAGTGCGTGGCTTCGGG - 360
   -HVQLSLPVLQVRDVLVRGFG
   - T S N S V C L S F R L E T C * C V A S G
     R P T Q F A C P S G * R R A S A W L R G
361 - GACTCTGTGGAAGAGGCCCTATCGGAGGCACGTGAACACCTCAAAAATGGCACTTGTGGT - 420
   -DSVEEALSEAREHLKNGTCG
   - T L W K R P Y R R H V N T S K M A L V V
     LCGRGPIGGT * TPQKWHLWS
421 - CTAGTAGAGCTGGAAAAAGGCGTACTGCCCCAGCTTGAACAGCCCTATGTGTTCATTAAA - 480
   -LVELEKGVLPQLEQPYVFIK
    * * S W K K A Y C P S L N S P M C S L N
    S R A G K R R T A P A * T A L C V H * T
481 - CGTTCTGATGCCTTAAGCACCAATCACGGCCACAAGGTCGTTGAGCTGGTTGCAGAAATG - 540
   -R S D A L S T N H G H K V V E L V A E M
    V L M P * A P I T A T R S L S W L Q K W
    F * C L K H Q S R P Q G R * A G C R N G
541 - GACGGCATTCAGTACGGTCGTAGCGGTATAACACTGGGAGTACTCGTGCCACATGTGGGC - 600
   \hbox{--}\hbox{D}\hbox{ $G$}\hbox{ $I$}\hbox{ $Q$}\hbox{ $Y$}\hbox{ $G$}\hbox{ $R$}\hbox{ $S$}\hbox{ $G$}\hbox{ $I$}\hbox{ $T$}\hbox{ $L$}\hbox{ $G$}\hbox{ $V$}\hbox{ $L$}\hbox{ $V$}\hbox{ $P$}\hbox{ $H$}\hbox{ $V$}\hbox{ $G$}
   - T A F S T V V A V * H W E Y S C H M W A
    R H S V R S * R Y N T G S T R A T C G R
601 - GAAACCCCAATTGCATACCGCAATGTTCTTCTTCGTAAGAACGGTAATAAGGGAGCCGGT - 660
   -ETPIAYRNVLLRKNGNKGAG
    K P Q L H T A M F F F V R T V I R E P V
    N P N C I P Q C S S S * E R * * G S R W
661 - GGTCATAGCTATGGCATCGATCTAAAGTCTTATGACTTAGGTGACGAGCTTGGCACTGAT - 720
   -G H S Y G I D L K S Y D L G D E L G T D
    VIAMASI * SLMT * VTSLALI
    S * L W H R S K V L * L R * R A W H * S
721 - CCCATTGAAGATTATGAACAAAACTGGAACACTAAGCATGGCAGTGGTGCACTCCGTGAA - 780
   -PIEDYEQNWNTKHGSGALRE
    P L K I M N K T G T L S M A V V H S V N
    H * R L * T K L E H * A W Q W C T P * T
781 - CTCACTCGTGAGCTCAATGGAGGTGCAGTCACTCGCTATGTCGACAACAATTTCTGTGGC - 840
   - L T R E L N G G A V T R Y V D N N F C G
    S L V S S M E V Q S L A M S T T I S V A
            A Q W R C S H S L C R Q Q F L W P
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841 - CCAGATGGGTACCCTCTTGATTGCATCAAAGATTTTCTCGCACGCGCGGGCAAGTCAATG - 900
   - P D G Y P L D C I K D F L A R A G K S M
   - Q M G T L L I A S K I F S H A R A S Q C
     R W V P S * L H Q R F S R T R G Q V N V
901 - TGCACTCTTTCCGAACAACTTGATTACATCGAGTCGAAGAGAGGTGTCTACTGCTGCCGT - 960
   -CTLSEQLDYIESKRGVYCCR
   - A L F P N N L I T S S R R E V S T A A V
     HSFRTT*LHRVEERCLLP*
961 - GACCATGAGCATGAAATTGCCTGGTTCACTGAGCGCTCTGATAAGAGCTACGAGCACCAG - 1020
   -DHEHEIAWFTERSDKSYEHQ
   - T M S M K L P G S L S A L I R A T S T R
     P * A * N C L V H * A L * * E L R A P D
1021 - ACACCCTTCGAAATTAAGAGTGCCAAGAAATTTGACACTTTCAAAGGGGAATGCCCAAAG - 1080
   -TPFEIKSAKKFDTFKGECPK
   - H P S K L R V P R N L T L S K G N A Q S
      TLRN * ECQEI * HFQRGMPKV
1081 - TTTGTGTTTCCTCTTAACTCAAAAGTCAAGTCATTCAACCACGTGTTGAAAAGAAAAAG - 1140
   - F V F P L N S K V K V I Q P R V E K K K
    LCFLLTOKSKSFNHVLKRKR
      C V S S * L K S Q S H S T T C * K E K D
1141 - ACTGAGGGTTTCATGGGGCGTATACGCTCTGTGTACCCTGTTGCATCTCCACAGGAGTGT - 1200
   -TEGFMGRIRSVYPVASPQEC
    L R V S W G V Y A L C T L L H L H R S V
     * G F H G A Y T L C V P C C I S T G V *
1201 - AACAATATGCACTTGTCTACCTTGATGAAATGTAATCATTGCGATGAAGTTTCATGGCAG - 1260
   -N N M H L S T L M K C N H C D E V S W Q
   - TICTCLP * * N V I I A M K F H G R
     Q Y A L V Y L D E M * S L R * S F M A D
1261 - ACGTGCGACTTTCTGAAAGCCACTTGTGAACATTGTGGCACTGAAAATTTAGTTATTGAA - 1320
   -T C D F L K A T C E H C G T E N L V I E
   - RATF * KPLVNIVALKI * LLK
     V R L S E S H L * T L W H * K F S Y * R
1321 - GGACCTACTACATGTGGGTACCTACTACTAATGCTGTAGTGAAAATGCCATGTCCTGCC - 1380
   - G P T T C G Y L P T N A V V K M P C P A
   - D L L H V G T Y L L M L * * K C H V L P
     T Y Y M W V P T Y * C C S E N A M S C L
1381 - TGTCAAGACCCAGAGATTGGACCTGAGCATAGTGTTGCAGATTATCACAACCACTCAAAC - 1440
   -CQDPEIGPEHSVADYHNHSN
    V K T Q R L D L S I V L Q I I T T T Q T
     SRPRDWT * A * C C R L S Q P L K H
1441 - ATTGAAACTCGACTCCGCAAGGGAGGTAGGACTAGATGTTTTTGGAGGCTGTGTTTTTGCC - 1500
   -IETRLRKGGRTRCFGGCVFA
    * N S T P Q G R * D * M F W R L C V C L
1501 - TATGTTGGCTGCTATAATAAGCGTGCCTACTGGGTTCCTCGTGCTAGTGCTGATATTGGC - 1560
   -Y V G C Y N K R A Y W V P R A S A D I G
    CWLL**ACLLGSSC*C*YWL
1561 - TCAGGCCATACTGGCATTACTGGTGACAATGTGGAGACCTTGAATGAGGATCTCCTTGAG - 1620
   -SGHTGITGDNVETLNEDLLE
      Q \quad A \quad I \quad L \quad A \quad L \quad L \quad V \quad T \quad M \quad W \quad R \quad P \quad * \quad M \quad R \quad I \quad S \quad L \quad R 
    RPYWHYW*QCGDLE*GSP*D
-ILSRERVNINIVGDFHLNEE
    Y * V V N V L T L T L L A I F I * M K R
     TES*TC*H*HCWRFSFE*RG
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1681 - GTTGCCATCATTTTGGCATCTTTCTCTGCTTCTACAAGTGCCTTTATTGACACTATAAAG - 1740
   -VAIILASFSASTSAFIDTIK
    L P S F W H L S L L L Q V P L L T L * R
      C H H F G I F L C F Y K C L Y * H Y K E
1741 - AGTCTTGATTACAAGTCTTTCAAAACCATTGTTGAGTCCTGCGGTAACTATAAAGTTACC - 1800
   -SLDYKSFKTIVESCGNYKVT
   - V L I T S L S K P L L S P A V T I K L P
      S * L Q V F Q N H C * V L R * L * S Y Q
1801 - AAGGGAAAGCCCGTAAAAGGTGCTTGGAACATTGGACAACAGAGATCAGTTTTAACACCA - 1860
   -KGKPVKGAWNIGQQRSVLTP
   - RESP * K V L G T L D N R D Q F * H H
      G K A R K R C L E H W T T E I S F N T T
1861 - CTGTGTGGTTTTCCCTCACAGGCTGCTGGTGTTATCAGATCAATTTTTGCGCGCACACTT - 1920
   -L C G F P S Q A A G V I R S I F A R T L
   - C V V F P H R L L V L S D Q F L R A H L
      V W F S L T G C W C Y Q I N F C A H T *
1921 - GATGCAGCAAACCACTCAATTCCTGATTTGCAAAGAGCAGCTGTCACCATACTTGATGGT - 1980
   -DAANHSIPDLQRAAVTILDG
   - M Q Q T T Q F L I C K E Q L S P Y L M V
      C S K P L N S * F A K S S C H H T * W Y
1981 - ATTTCTGAACAGTCATTACGTCTTGTCGACGCCATGGTTTATACTTCAGACCTGCTCACC - 2040
   -ISEQSLRLVDAMVYTSDLLT
   - F L N S H Y V L S T P W F I L Q T C S P
      F * T V I T S C R R H G L Y F R P A H Q
2041 - AACAGTGTCATTATTATGGCATATGTAACTGGTGGTCTTGTACAACAGACTTCTCAGTGG - 2100
   - N S V I I M A Y V T G G L V Q Q T S Q W - T V S L L W H M * L V V L Y N R L L S G
     Q C H Y Y G I C N W W S C T T D F S V V
2101 - TTGTCTAATCTTTTGGGCACTACTGTTGAAAAACTCAGGCCTATCTTTGAATGGATTGAG - 2160
   -LSNLLGTTVEKLRPIFEWIE
   - C L I F W A L L L K N S G L S L N G L R
      V * S F G H Y C * K T Q A Y L * M D * G
2161 - GCGAAACTTAGTGCAGGAGTTGAATTTCTCAAGGATGCTTGGGAGATTCTCAAATTTCTC - 2220
   - A K L S A G V E F L K D A W E I L K F L
   - R N L V Q E L N F S R M L G R F S N F S
     ET * CRS * ISQGCLGDSQISH
2221 - ATTACAGGTGTTTTTGACATCGTCAAGGGTCAAATACAGGTTGCTTCAGATAACATCAAG - 2280
   -ITGVFDIVKGQIQVASDNIK
     L Q V F L T S S R V K Y R L L Q I T S R
     YRCF*HRQGSNTGCFR*HQG
2281 - GATTGTGTAAAATGCTTCATTGATGTTGTTAACAAGGCACTCGAAATGTGCATTGATCAA - 2340
   -DCVKCFIDVVNKALEMCIDQ
    IV * N A S L M L L T R H S K C A L I K
L C K M L H * C C * Q G T R N V H * S S
2341 - GTCACTATCGCTGGCGCAAAGTTGCGATCACCTCAACTTAGGTGAAGTCTTCATCGCTCAA - 2400
   -V T I A G A K L R S L N L G E V F I A Q
   - S L S L A Q S C D H S T * V K S S S L K
     HYRWRKVAITQLR*SLHRSK
2401 - AGCAAGGGACTTTACCGTCAGTGTATACGTGGCAAGGAGCAGCTGCAACTACTCATGCCT - 2460
   Q G T L P S V Y T W Q G A A A T T H A S
2461 - CTTAAGGCACCAAAAGAAGTAACCTTTCTTGAAGGTGATTCACATGACACAGTACTTACC - 2520
   - L K A P K E V T F L E G D S H D T V L T
     L R H Q K K * P F L K V I H M T Q Y L P
       GTKRSNLS*R*FT*HSTYL
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2521 - TCTGAGGAGGTTGTTCTCAAGAACGGTGAACTCGAAGCACTCGAGACGCCCGTTGATAGC - 2580
   -SEEVVLKNGELEALETPVDS
   - L R R L F S R T V N S K H S R P L I A
      * G G C S Q E R * T R S T R D A R * * L
2581 - TTCACAAATGGAGCTATCGTCGGCACACCAGTCTGTGTAAATGGCCTCATGCTCTTAGAG - 2640
   -FTNGAIVGTPVCVNGLMLLE
   - S Q M E L S S A H Q S V * M A S C S * R
     H K W S Y R R H T S L C K W P H A L R D
-I K D K E Q Y C A L S P G L L A T N N V
   - L R T K N N T A H C L L V Y W L Q T M S
     * G Q R T I L R I V S W F T G Y K Q C L
2701 - TTTCGCTTAAAAGGGGGTGCACCAATTAAAGGTGTAACCTTTGGAGAAGATACTGTTTGG - 2760
   -FRLKGGAPIKGVTFGEDTVW
   - F A * K G V H Q L K V * P L E K I L F G
     S L K R G C T N * R C N L W R R Y C L G
2761 - GAAGTTCAAGGTTACAAGAATGTGAGAATCACATTTGAGCTTGATGAACGTGTTGACAAA - 2820
   -EVQGYKNVRITFELDERVDK
   - K F K V T R M \star E S H L S L M N V L T K
     S S R L Q E C E N H I * A * * T C * Q S
2821 - GTGCTTAATGAAAAGTGCTCTGTCTACACTGTTGAATCCGGTACCGAAGTTACTGAGTTT - 2880
   -V L N E K C S V Y T V E S G T E V T E F
   - C L M K S A L S T L L N P V P K L L S L
   - A * * K V L C L H C * I R Y R S Y * V C
2881 - GCATGTGTTGTAGCAGAGGCTGTTGTGAAGACTTTACAACCAGTTTCTGATCTCCTTACC - 2940
   - A C V V A E A V V K T L Q P V S D L L T
   - H V L * Q R L L * R L Y N Q F L I S L P
     M C C S R G C C E D F T T S F * S P Y Q
2941 - AACATGGGTATTGATCTTGATGAGTGGAGTGTAGCTACATTCTACTTATTTGATGATGCT - 3000
   -NMGIDLDEWSVATFYLFDDA
   - T W V L I L M S G V * L H S T Y L M M L
     HGY*S**VECSYILLI**CW
3001 - GGTGAAGAAACTTTTCATCACGTATGTATTGTTCCTTTTACCCTCCAGATGAGGAAGAA - 3060
   -GEENFSSRMYCSFYPPDEEE
    V K K T F H H V C I V P F T L Q M R K K
     * R K L F I T Y V L F L L P S R * G R R
3061 - GAGGACGATGCAGAGTGTGAGGAAGAAGAAATTGATGAAACCTGTGAACATGAGTACGGT - 3120 ·
   -EDDAECEEEIDETCEHEYG
    R T M Q S V R K K L M K P V N M S T V
     G R C R V * G R R N * * N L * T * V R Y
3121 - ACAGAGGATGATTATCAAGGTCTCCCTCTGGAATTTGGTGCCTCAGCTGAAACAGTTCGA - 3180
   -TEDDYQGLPLEFGASAETVR
   - Q R M I I K V S L W N L V P Q L K Q F E - R G * L S R S P S G I W C L S * N S S S
3181 - GTTGAGGAAGAAGAGGAAGACTGGCTGGATGATACTACTGAGCAATCAGAGATTGAG - 3240
   -VEEEEEDWLDDTTEQSEIE
     L R K K R K T G W M I L L S N Q R L S
     * G R R R G R L A G * Y Y * A I R D * A
3241 - CCAGAACCAGAACCTACACCTGAAGAACCAGTTAATCAGTTTACTGGTTATTTAAAACTT - 3300
   -PEPEPTPEEPVNQFTGYLKL
   - Q N Q N L H L K N Q L I S L L V I * N L
   - RTRTYT * RTS * SVYWLFKTY
3301 - ACTGACAATGTTGCCATTAAATGTGTTGACATCGTTAAGGAGGCACAAAGTGCTAATCCT - 3360
   -T D N V A I K C V D I V K E A Q S A N P
    LTMLPLNVLTSLRRHKVLIL
      * Q C C H * M C * H R * G G T K C * S Y
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3361 - ATGGTGATTGTAAATGCTGCTAACATACACCTGAAACATGGTGGTGGTGTAGCAGGTGCA - 3420
    - M V I V N A A N I H L K H G G G V A G A
    - W * L * M L L T Y T * N M V V V * Q V H
      G D C K C C * H T P E T W W W C S R C T
3421 - CTCAACAAGGCAACCAATGGTGCCATGCAAAAGGAGAGTGATGATTACATTAAGCTAAAT - 3480
    -L N K A T N G A M Q K E S D D Y I K L N
    - STR'Q P M V P C K R R V M I T L S * M
       QQGNQWCHAKGE**LH*AKW
3481 - GGCCCTCTTACAGTAGGAGGGTCTTGTTTGCTTTCTGGACATAATCTTGCTAAGAAGTGT - 3540
    -GPLTVGGSCLLSGHNLAKKC
    - A L L Q * E G L V C F L D I I L L R S V
      PSYSRRVLFAFWT*SC*EVS
3541 - CTGCATGTTGTTGGACCTAAACCTAAATGCAGGTGAGGACATCCAGCTTCTTAAGGCAGCA - 3600
    -L H V V G P N L N A G E D I Q L L K A A
    - C M L L D L T * M Q V R T S S F L R Q H
      A C C W T * P K C R * G H P A S * G S I
3601 - TATGAAAATTTCAATTCACAGGACATCTTACTTGCACCATTGTTGTCAGCAGGCATATTT - 3660
    -YENFNSQDILLAPLLSAGIF
    - M K I S I H R T S Y L H H C C O O A Y L
      * K F Q F T G H L T C T I V V S R H I W
3661 - GGTGCTAAACCACTTCAGTCTTTACAAGTGTGCGTGCAGACGGTTCGTACACAGGTTTAT - 3720
    -GAKPLQSLQVCVQTVRTQVY
    V L N H F S L Y K C A C R R F V H R F I
       \texttt{C} \quad \star \quad \texttt{T} \quad \texttt{S} \quad \texttt{V} \quad \texttt{F} \quad \texttt{T} \quad \texttt{S} \quad \texttt{V} \quad \texttt{R} \quad \texttt{A} \quad \texttt{D} \quad \texttt{G} \quad \texttt{S} \quad \texttt{Y} \quad \texttt{T} \quad \texttt{G} \quad \texttt{L} \quad \texttt{Y} 
3721 - ATTGCAGTCAATGACAAAGCTCTTTATGAGCAGGTTGTCATGGATTATCTTGATAACCTG - 3780
    - I A V N D K A L Y E Q V V M D Y L D N L
    - L Q S M T K L F M S R L S W I I L I T *
      C S Q * Q S S L * A G C H G L S * * P E
3781 - AAGCCTAGAGTGGAAGCACCTAAACAAGAGGGGCCACCAAACACAGAAGATTCCAAAACT - 3840
    -KPRVEAPKQEEPPNTEDSKT
    - S L E W K H L N K R S H Q T Q K I P K L
     A * S G S T * T R G A T K H R R F Q N *
3841 - GAGGAGAAATCTGTCGTACAGAAGCCTGTCGATGTGAAGCCAAAAATTAAGGCCTGCATT - 3900
    -EEKSVVQKPVDVKPKIKACI
     RRNLSYRSLSM*SQKLRPAL
     GEICRTEACRCEAKN*GLH*
3901 - GATGAGGTTACCACAACACTGGAAGAACTAAGTTTCTTACCAATAAGTTACTCTTGTTT - 3960
    -DEVTTTLEETKFLTNKLLLF
     M R L P Q H W K K L S F L P I S Y S C L
     * G Y H N T G R N * V S Y Q * V T L V C
3961 - GCTGATATCAATGGTAAGCTTTACCATGATTCTCAGAACATGCTTAGAGGTGAAGATATG - 4020
    - A D I N G K L Y H D S Q N M L R G E D M
     LISMVSFTMILRTCLEVKIC
     * Y O W * A L P * F S E H A * R * R Y V
4021 - TCTTTCCTTGAGAAGGATGCACCTTACATGGTAGGTGATGTTATCACTAGTGGTGATATC - 4080
    -SFLEKDAPYMVGDVITSGDI
   - L S L R R M H L T W * V M L S L V V I S
     FP * EGCTLHGR * CYH * W * YH
4081 - ACTTGTGTTGTAATACCCTCCAAAAAGGCTGGTGGCACTACTGAGATGCTCTCAAGAGCT - 4140
    -T C V V I P S K K A G G T T E M L S R A
   - L V L * Y P P K R L V A L L R C S Q E L
     L C C N T L Q K G W W H Y * D A L K S F
4141 - TTGAAGAAGTGCCAGTTGATGAGTATATAACCACGTACCCTGGACAAGGATGTGCTGGT - 4200
    -L K K V P V D E Y I T T Y P G Q G C A G
     * R K C Q L M S I * P R T L D K D V L V
      E E S A S * * V Y N H V P W T R M C W L
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4201 - TATACACTTGAGGAAGCTAAGACTGCTCTTAAGAAATGCAAATCTGCATTTTATGTACTA - 4260
   -Y T L E E A K T A L K K C K S A F Y V L
    IHLRKLRLLRNANLHFMYY
     Y T * G S * D C S * E M Q I C I L C T T
4261 - CCTTCAGAAGCACCTAATGCTAAGGAAGATTCTAGGAACTGTATCCTGGAATTTGAGA - 4320
   - P S E A P N A K E E I L G T V S W N L R
   - L Q K H L M L R K R F * E L Y P G I * E
      FRST * C * GRD SRN C I L E F E R
4321 - GAAATGCTTGCTCATGCTGAAGAGACAAGAAAATTAATGCCTATATGCATGGATGTTAGA - 4380
   -EMLAHAEETRKLMPICMDVR
   - K C L L M L K R Q E N * C L Y A W M L E
      N A C S C * R D K K I N A Y M H G C * S
4381 - GCCATAATGGCAACCATCCAACGTAAGTATAAAGGAATTAAAATTCAAGAGGGCATCGTT - 4440
   -AIMATIQRKYKGIKIQEGIV
   - P * W Q P S N V S I K E L K F K R A S L
      H N G N H . P T * V * R N * N S R G H R *
4441 - GACTATGGTGTCCGATTCTTCTTTATACTAGTAAAGAGCCTGTAGCTTCTATTATTACG - 4500
   -DYGVRFFFYTSKEPVASIIT
   - T M V S D S S F I L V K S L * L L L R
     L W C P I L L L Y * * R A C S F Y Y Y E
4501 - AAGCTGAACTCTCTAAATGAGCCGCTTGTCACAATGCCAATTGGTTATGTGACACATGGT - 4560
   -KLNSLNEPLVTMPIGYVTHG
    S * T L * M S R L S Q C Q L V M * H M V
     A E L S K * A A C H N A N W L C D T W F
4561 - TTTAATCTTGAAGAGGCTGCGCGCTGTATGCGTTCTCTTAAAGCTCCTGCCGTAGTGTCA - 4620
   -FNLEEAARCMRSLKAPAVVS
   - LILKRLRAVCVLLKLLP * C Q
     * S * R G C A L Y A F S * S S C R S V S
4621 - GTATCATCACCAGATGCTGTTACTACATATAATGGATACCTCACTTCGTCATCAAAGACA - 4680
   -V S S P D A V T T Y N G Y L T S S S K T
   - Y H H Q M L L L H I M D T S L R H Q R H
      I I T R C C Y Y I * W I P H F V I K D I
-SEEHFVETVSLAGSYRDWSY
    LRSTL * KQFLWLALTEIGPI
     * G A L C R N S F F G W L L Q R L V L F
4741 - TCAGGACAGCGTACAGAGTTAGGTGTTGAATTTCTTAAGCGTGGTGACAAAATTGTGTAC - 4800
   -SGQRTELGVEFLKRGDKIVY
     Q D S V Q S * V L N F L S V V T K L C T
     RTAYRVRC*IS*AW*QNCVP
4801 - CACACTCTGGAGAGCCCCGTCGAGTTTCATCTTGACGGTGAGGTTCTTTCACTTGACAAA - 4860
   -HTLESPVEFHLDGEVLSLDK
    T L W R A P S S F I L T V R F F H L T N H S G E P R R V S S * R * G S F T * Q T
4861 - CTAAAGAGTCTCTTATCCCTGCGGGAGGTTAAGACTATAAAAGTGTTCACAACTGTGGAC - 4920
   - L K S L L S L R E V K T I K V F T T V D
     * R V S Y P C G R L R L * K C S Q L W T
     KESLIPAGG * DYKSVHNCGO
4921 - AACACTAATCTCCACACACACGCTTGTGGATATGTCTATGACATATGGACAGCAGTTTGGT - 4980
   \hbox{-NTNLHTQLVDMSMTYGQQFG}
   - T L I S T H S L W I C L * H M D S S L V
     H * S P H T A C G Y V Y D I W T A V W S
4981 - CCAACATACTTGGATGTTGCTGATGTTACAAAAATTAAACCTCATGTAAATCATGAGGGT - 5040
   -PTYLDGADVTKIKPHVNHEG
    Q H T W M V L M L Q K L N L M * I M R V
      N I L G W C * C Y K N * T S C K S * G *
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5041 - AAGACTTTCTTTGTACTACCTAGTGATGACACACTACGTAGTGAAGCTTTCGAGTACTAC - 5100
   -KTFFVLPSDDTLRSEAFEYY
    RLSLYYLVMTHYVVKLSSTT
     D F L C T T * * * H T T * * S F R V L P
5101 - CATACTCTTGATGAGAGTTTTCTTGGTAGGTACATGTCTGCTTTAAACCACAAAGAAA - 5160
   - H T L D E S F L G R Y M S A L N H T K K
    I L L M R V F L V G T C L L * T T Q R N
     YS * * E F S W * V H V C F K P H K E M
5161 - TGGAAATTTCCTCAAGTTGGTGGTTTAACTTCAATTAAATGGGCTGATAACAATTGTTAT - 5220
   -WKFPQVGGLTSIKWADNNCY
   - G N F L K L V V * L Q L N G L I T I V I
     E I S S S W W F N F N * M G * * Q L L F
5221 - TTGTCTAGTGTTTTATTAGCACTTCAACAGCTTGAAGTCAAATTCAATGCACCAGCACTT - 5280
   -LSSVLLALQQLEVKFNAPAL
   - C L V F Y * H F N S L K S N S M H Q H F
     V * C F I S T S T A * S Q I Q C T S T S
5281 - CAAGAGGCTTATTATAGAGCCCGTGCTGGTGATGCTGCTAACTTTTGTGCACTCATACTC - 5340
   -QEAYYRARAGDAANFCALIL
   - K R L I I E P V L V M L L T F V H S Y S
     RGLL * SPCW * CC * LLCTHTR
5341 - GCTTACAGTAATAAAACTGTTGGCGAGCTTGGTGATGTCAGAGAAACTATGACCCATCTT - 5400
   - A Y S N K T V G E L G D V R E T M T. H L
   - L T V I K L L A S L V M S E K L * P I F
     LQ**NCWRAW*CQRNYDPSS
5401 - CTACAGCATGCTAATTTGGAATCTGCAAAGCGAGTTCTTAATGTGGTGTGTAAACATTGT - 5460
   -LQHANLESAKRVLNVVCKHC
   - Y S M L I W N L Q S E F L M W C V N I V
     TAC*FGICKASS*CGV*TLW
5461 - GGTCAGAAAACTACTACCTTAACGGGTGTAGAAGCTGTGATGTATATGGGTACTCTATCT - 5520
   -GQKTTTLTGVEAVMYMGTLS
-VRKLLP*RV*KL*CIWVLYL
    S E N Y Y L N G C R S C D V Y G Y S I L
-Y D N L K T G V S I P C V C G R D A T Q
    MIILRQVFPFHVCVVMLHN
     * * S * D R C F H S M C V W S * C Y T I
5581 - TATCTAGTACAACAAGAGTCTTCTTTTGTTATGATGTCTGCACCACCTGCTGAGTATAAA - 5640
   -Y L V Q Q E S S F V M M S A P P A E Y K
    I * Y N K S L L L L * C L H H L L S I N
     S S T T R V F F C Y D V C T T C * V * I
5641 - TTACAGCAAGGTACATTCTTATGTGCGAATGAGTACACTGGTAACTATCAGTGTGGTCAT - 5700
   -L Q Q G T F L C A N E Y T G N Y Q C G H
    Y S K V H S Y V R M S T L V T I S V V I
    TARYILMCE * V H W * L S V W S L
5701 - TACACTCATATAACTGCTAAGGAGACCCTCTATCGTATTGACGGAGCTCACCTTACAAAG - 5760
   -YTHITAKETLYRIDGAHLTK
    T L I * L L R R P S I V L T E L T L Q R
   - HSYNC * GDPLSY * RSSPYKD
5761 - ATGTCAGAGTACAAAGGACCAGTGACTGATGTTTTCTACAAGGAAACATCTTACACTACA - 5820
   - M S E Y K G P V T D V F Y K E T S Y T T
   - C Q S T K D Q * L M F S T R K H L T L Q
   - V R V Q R T S D * C F L Q G N I L H Y N
-TIKPVSYKLDGVTYTEIEPK
    PSSLCRINSMELLTQRLNQN
     HQACVV*TRWSYLHRD*TKI
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5881 - TTGGATGGGTATTATAAAAAGGATAATGCTTACTATACAGAGCAGCCTATAGACCTTGTA - 5940
   -LDGYYKKDNAYYTEQPIDLV
    W M G I I K R I M L T I Q S S L * T L Y
     G W V L * K G * C L L Y R A A Y R P C T
5941 - CCAACTCAACCATTACCAAATGCGAGTTTTGATAATTTCAAACTCACATGTTCTAACACA - 6000
   -PTQPLPNASFDNFKLTCSNT
   - Q L N H Y Q M R V L I I S N S H V L T Q
     NSTITKCEF**FQTHMF*HK
6001 - AAATTTGCTGATGATTTAAATCAAATGACAGGCTTCACAAAGCCAGCTTCACGAGAGCTA - 6060
   -K F A D D L N Q M T G F T K P A S R E L
   - N L L M I * I K * Q A S Q S Q L H E S Y
      I C * * F K S N D R L H K A S F T R A I
6061 - TCTGTCACATTCTTCCCAGACTTGAATGGCGATGTAGTGGCTATTGACTATAGACACTAT - 6120
   -SVTFFPDLNGDVVAIDYRHY
   - L S H S S Q T * M A M * W L L T I D T I
      C H I L P R L E W R C S G Y * L * T L F
6121 - TCAGCGAGTTTCAAGAAAGGTGCTAAATTACTGCATAAGCCAATTGTTTGGCACATTAAC - 6180
   -SASFKKGAKLLHKPIVWHIN
   - Q R V S R K V L N Y C I S Q L F G T L T
      S E F Q E R C * I T A * A N C L A H * P
6181 - CAGGCTACAACCAAGACAACGTTCAAACCAAACACTTGGTGTTTACGTTGTCTTTGGAGT - 6240
   -QATTKTTFKPNTWCLRCLWS
   - R L Q P R Q R S N Q T L G V Y V V F G V
      G Y N Q D N V Q T K H L V F T L S L E Y
6241 - ACAAAGCCAGTAGATACTTCAAATTCATTTGAAGTTCTGGCAGTAGAAGACACACAAGGA - 6300
   -TKPVDTSNSFEVLAVEDTQG
   - Q S Q * I L Q I H L K F W Q * K T H K E
      KASRYFKFI*SSGSRRHTRN
6301 - ATGGACAATCTTGCTTGTGAAAGTCAACAACCCACCTCTGAAGAAGTAGTGGAAAATCCT - 6360
   - M D N L A C E S Q Q P T S E E V V E N P
    W T I L L V K V N N P P L K K * W K I L
     GQSCL * KSTTHL * RSSGKSY
6361 - ACCATACAGAAGGAAGTCATAGAGTGTGACGTGAAAACTACCGAAGTTGTAGGCAATGTC - 6420
   -TIQKEVIECDVKTTEVVGNV
    PYRRKS * SVT * KLPKL * AMS
     HTEGSHRV * RENYRSCRQCH
6421 - ATACTTAAACCATCAGATGAAGGTGTTAAAGTAACACAAGAGTTAGGTCATGAGGATCTT - 6480
   -ILKPSDEGVKVTQELGHEDL
    Y L N H Q M K V L K * H K S * V M R I L
      T * T I R * R C * S N T R V R S * G S Y
6481 - ATGGCTGCTTATGTGGAAAACACAAGCATTACCATTAAGAAACCTAATGAGCTTTCACTA - 6540
   - M A A Y V E N T S I T I K K P N E L S L
    W L L M W K T Q A L P L R N L M S F H *
    GCLCGKHKHYH*ET**AFTS
6541 - GCCTTAGGTTTAAAAACAATTGCCACTCATGGTATTGCTGCAATTAATAGTGTTCCTTGG - 6600
   -ALGLKTIATHGIAAINSVPW
    P * V * K Q L P L M V L L Q L I V F L G
     L R F K N N C H S W Y C C N * * C S L E
6601 - AGTAAAATTTTGGCTTATGTCAAACCATTCTTAGGACAAGCAGCAACTTACAACATCAAAT - 6660
   -SKILAYVKPFLGQAAITTSN
     V K F W L M S N H S * D K Q Q L Q H Q I
     * N F G L C Q T I L R T S S N Y N I K L
6661 - TGCGCTAAGAGATTAGCACAACGTGTGTTTAACAATTATATGCCTTATGTGTTTACATTA - 6720
   -CAKRLAQRVFNNYMPYVFTL
    A L R D * H N V C L T I I C L M C L H Y
     R * E I S T T C V * Q L Y A L C V Y I I
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6721 - TTGTTCCAATTGTGTACTTTTACTAAAAGTACCAATTCTAGAATTAGAGCTTCACTACCT - 6780
   -LFQLCTFTKSTNSRIRASLP
   - C S N C V L L K V P I L E L H Y L
     V P I V Y F Y * K Y Q F * N * S F T T Y
6781 - ACAACTATTGCTAAAAATAGTGTTAAGAGTGTTGCTAAATTATGTTTGGATGCCGGCATT - 6840
   -TTIAKNSVKSVAKLCLDAGI
   - Q L L L K I V L R V L L N Y V W M P A L
      N Y C * K * C * E C C * I M F G C R H *
6841 - AATTATGTGAAGTCACCCAAATTTTCTAAATTGTTCACAATCGCTATGTGGCTATTGTTG - 6900
   -NYVKSPKFSKLFTIAMWLLL
   - I M * S H P N F L N C S Q S L C G Y C C
     LCEVTQIF * IVHNRYVAIVV
6901 - TTAAGTATTTGCTTAGGTTCTCTAATCTGTGTAACTGCTGCTTTTTGGTGTACTCTTATCT - 6960
   -LSICLGSLICVTAAFGVLLS
   - * V F A * V L * S V * L L L L V Y S Y L
      KYLLRFSNLCNCCFWCTLI*
6961 - AATTTTGGTGCTCCTTCTTATTGTAATGGCGTTAGAGAATTGTATCTTAATTCGTCTAAC - 7020
   -NFGAPSYCNGVRELYLNSSN
    I L V L L I V M A L E N C I L I R L T
     FWCSFLL*WR*RIVS*FV*R
7021 - GTTACTACTATGGATTTCTGTGAAGGTTCTTTTCCTTGCAGCATTTGTTTAAGTGGATTA - 7080
   -V T T M D F C E G S F P C S I C L S G L
    LLLWISVKVLFLAAFV*VD*
     YYYGFL*RFFSLQHLFKWIR
7081 - GACTCCCTTGATTCTTATCCAGCTCTTGAAACCATTCAGGTGACGATTTCATCGTACAAG - 7140
   -DSLDSYPALETIQVTISSYK
   - TPLILIQLLKPFR * RFHRTS
     L P * F L S S S * N H S G D D F I V Q A
7141 - CTAGACTTGACAATTTTAGGTCTGGCCGCTGAGTGGGTTTTGGCATATATGTTGTTCACA - 7200
   - L D L T I L G L A A E W V L A Y M L F T
     * T * Q F * V W P L S G F W H I C C S Q
     R L D N F R S G R * V G F G I Y V V H K
7201 - AAATTCTTTTATTTATTAGGTCTTTCAGCTATAATGCAGGTGTTCTTTGGCTATTTTGCT - 7260
   -KFFYLLGLSAIMQVFFGYFA
    NSFIY*VFQL*CRCSLAILL
      ILLFIRSFSYNAGVLWLFC*
7261 - AGTCATTCATCAGCAATTCTTGGCTCATGTGGTTTATCATTAGTATTGTACAAATGGCA - 7320
   -SHFISNSWLMWFIISIVQMA
    V I S S A I L G S C G L S L V L Y K W H
    S F H Q Q F L A H V V Y H * Y C T N G T
7321 - CCCGTTTCTGCAATGGTTAGGATGTACATCTTCTTTTCTTCTTCTACTACATATGGAAG - 7380
   - P V S A M V R M Y I F F A S F Y Y I W K
- P F L Q W L G C T S S L L L S T T Y G R
     R F C N G * D V H L L C F F L L H M E E
7381 - AGCTATGTTCATATCATGGATGGTTGCACCTCTTCGACTTGCATGATGTGCTATAAGCGC - 7440
   -SYVHIMDGCTSSTCMMCYKR
     A M F I S W M V A P L R L A * C A I S A
     LCSYHGWLHLFDLHDVL*AO
7441 - AATCGTGCCACACGCGTTGAGTGTACAACTATTGTTAATGGCATGAAGAGATCTTTCTAT - 7500
   -N R A T R V E C T T I V N G M K R S F Y
    I V P H A L S V Q L L L M A * R D L S M
     S C H T R * V Y N Y C * W H E E I F L C
7501 - GTCTATGCAAATGGAGGCCGTGGCTTCTGCAAGACTCACAATTGGAATTGTCTCAATTGT - 7560
   -VYANGGRGFCKTHNWNCLNC
    S M Q M E A V A S A R L T I G I V S I V
     L C K W R P W L L Q D S Q L E L S Q L *
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7561 - GACACATTTTGCACTGGTAGTACATTCATTAGTGATGAAGTTGCTCGTGATTTGTCACTC - 7620
    -DTFCTGSTFISDEVARDLSL
     THFALVVHSLVMKLLVICHS
       H I L H W * Y I H * * * S C S * F V T P
7621 - CAGTTTAAAAGACCAATCAACCCTACTGACCAGTCATCGTATATTGTTGATAGTGTTGCT - 7680
    -QFKRPINPTDQSSYIVDSVA
      SLKDQSTLLTSHRILLIVLL
       V * K T N Q P Y * P V I V Y C * * C C C
7681 - GTGAAAAATGGCGCGCTTCACCTCTACTTTGACAAGGCTGGTCAAAAGACCTATGAGAGA - 7740
    -V K N G A L H L Y F D K A G Q K T Y E R
     * K M A R F T S T L T R L V K R P M R D
       EKWRASPLL*QGWSKDL*ET
7741 - CATCCGCTCTCCCATTTTGTCAATTTAGACAATTTGAGAGCTAACAACACTAAAGGTTCA - 7800
    - H P L S H F V N L D N L R A N N T K G S
    - I R S P I L S I * T I * E L T T L K V H
       S A L P F C Q F R Q F E S * Q H * R F T
7801 - CTGCCTATTAATGTCATAGTTTTTGATGGCAAGTCCAAATGCGACGAGTCTGCTTCTAAG - 7860
    -LPINVIVFDGKSKCDESASK
     C L L M S * F L M A S P N A T S L L L S
       A Y * C H S F * W Q V Q M R R V C F * V
7861 - TCTGCTTCTGTGTACTACAGTCAGCTGATGTGCCAACCTATTCTGTTGCTTGACCAAGCT - 7920
    -SASVYYSQLMCQPILLLDQA
     L L L C T T V S * C A N L F C C L T K L
        \texttt{C} \quad \texttt{F} \quad \texttt{C} \quad \texttt{V} \quad \texttt{L} \quad \texttt{Q} \quad \texttt{S} \quad \texttt{A} \quad \texttt{D} \quad \texttt{V} \quad \texttt{P} \quad \texttt{T} \quad \texttt{Y} \quad \texttt{S} \quad \texttt{V} \quad \texttt{A} \quad * \quad \texttt{P} \quad \texttt{S} \quad \texttt{S} 
7921 - CTTGTATCAAACGTTGGAGATAGTACTGAAGTTTCCGTTAAGATGTTTGATGCTTATGTC - 7980
    - L V S N V G D S T E V S V K M F D A Y V
     LYQTLEIVLKFPLRCLMLMS
       C I K R W R * Y * S F R * D V * C L C R
7981 - GACACCTTTTCAGCAACTTTTAGTGTTCCTATGGAAAAACTTAAGGCACTTGTTGCTACA - 8040
    -D T F S A T F S V P M E K L K A L V A T
    - TPFQQLLVFLWKNLRHLLLQ
      H L F S N F * C S Y G K T * G T C C Y S
8041 - GCTCACAGCGAGTTAGCAAAGGGTGTAGCTTTAGATGGTGTCCTTTCTACATTCGTGTCA - 8100
    - A H S E L A K G V A L D G V L S T F V S
     LTAS * Q R V * L * M V S F L H S C Q
      SQRVSKGCSFRWCPFYIRVS
8101 - GCTGCCCGACAAGGTGTTGTTGATACCGATGTTGACACAAAGGATGTTATTGAATGTCTC - 8160
    - A A R Q G V V D T D V D T K D V I E C L
     LPDKVLLIPMLTQRMLLNVS
       C P T R C C * Y R C * H K G C Y * M S Q
8161 - AAACTTTCACATCACTCTGACTTAGAAGTGACAGGTGACAGTTGTAACAATTTCATGCTC - 8220
    - K L S H H S D L E V T G D S C N N F M L
- N F H I T L T * K * Q V T V V T I S C S
- T F T S L * L R S D R * Q L * Q F H A H
8221 - ACCTATAATAAGGTTGAAAACATGACGCCCAGAGATCTTGGCGCATGTATTGACTGTAAT - 8280
    -TYNKVENMTPRDLGACIDCN
     PIIRLKT*RPEILAHVLTVM
      L * * G * K H D A Q R S W R M Y * L * C
8281 - GCAAGGCATATCAATGCCCAAGTAGCAAAAAGTCACAATGTTTCACTCATCTGGAATGTA - 8340
    -ARHINAQVAKSHNVSLIWNV
     Q G I S M P K \star Q K V T M F H S S G M \star
     K A Y Q C P S S K K S Q C F T H L E C K
8341 - AAAGACTACATGTCTTTATCTGAACAGCTGCGTAAACAAATTCGTACTGCCGAAGAAG - 8400
    - K D Y M S L S E Q L R K Q I R T A A K K
      K T T C L Y L N S C V N K F V L L P R R
       R L H V F I * T A A * T N S Y C C Q E E
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8401 - AACAACATACCTTTTACACTAACTTGTGCTACAACTAGACAGGTTGTCAATGTCATAACT - 8460
    -N N I P F T L T C A T T R Q V V N V I T
    - T T Y L L H * L V L Q L D R L S M S * L
      Q H T F Y T N L C Y N * T G C Q C H N Y
8461 - ACTAAAATCTCACTCAAGGGTGGTAAGATTGTTAGTACTTGTTTTAAACTTATGCTTAAG - 8520
   -TKISLKGGKIVSTCFKLMLK
   - L K S H S R V V R L L V L V L N L C L R
      * N L T Q G W * D C * Y L F * T Y A * G
-ATLLCVLAALVCYIVMPVHT
   - P H Y C A F L L H W F V I S L C Q Y I H
     H I I V R S C C I G L L Y R Y A S T Y I
8581 - TTGTCAATCCATGATGGTTACACAAATGAAATCATTGGTTACAAAGCCATTCAGGATGGT - 8640
   \hbox{-L S I H D G Y T N E I I G Y K A I Q D G}
   - C Q S M M V T Q M K S L V T K P F R M V
     V N P * W L H K * N H W L Q S H S G W C
8641 - GTCACTCGTGACATCATTTCTACTGATGATTGTTTTTGCAAATAAACATGCTGGTTTTGAC - 8700
   -V T R D I I S T D D C F A N K H A G F D
   - S L V T S F L L M I V L Q I N M L V L T
      H S * H H F Y * * L F C K * T C W F * R
8701 - GCATGGTTTAGCCAGCGTGGTGGTTCATACAAAAATGACAAAAGCTGCCCTGTAGTAGCT - 8760
   - A W F S Q R G G S Y K N D K S C P V V A
   - H G L A S V V V H T K M T K A A L * * L
      M V * P A W W F I Q K * Q K L P C S S C
8761 - GCTATCATTACAAGAGAGTTGGTTTCATAGTGCCTGGCTTACCGGGTACTGTGCTGAGA - 8820
   -AIITREIGFIVPGLPGTVLR
    LSLQERLVS * CLAYRVLC * E
      Y H Y K R D W F H S A W L T G Y C A E S
8821 - GCAATCAATGGTGACTTCTTGCATTTTCTACCTCGTGTTTTTAGTGCTGTTTGGCAACATT - 8880
   -AINGDFLHFLPRVFSAVGNI
     Q S M V T S C I F Y L V F L V L L A T F
     N Q W * L L A F S T S C F * C C W Q H L
8881 - TGCTACACACCTTCCAAACTCATTGAGTATAGTGATTTTGCTACCTCTGCTTGCGTTCTT - 8940
   -CYTPSKLIEYSDFATSACVL
     ATHLPNSLSIVILLPLAFL
     LHTFQT.H*V**FCYLCLRSC
8941 - GCTGCTGAGTGTACAATTTTTAAGGATGCTATGGGCAAACCTGTGCCATATTGTTATGAC - 9000
   - A A E C T I F K D A M G K P V P Y C Y D
     LLSVQFLRMLWANLCHIVMT
     C * V Y N F * G C Y G Q T C A I L L * H
9001 - ACTAATTTGCTAGAGGGTTCTATTTCTTATAGTGAGCTTCGTCCAGACACTCGTTATGTG - 9060
   -TNLLEGSISYSELRPDTRYV
     L I C * R V L F L I V S F V Q T L V M C * F A R G F Y F L * * A S S R H S L C A
9061 - CTTATGGATGGTTCCATCATACAGTTTCCTAACACTTACCTGGAGGGTTCTGTTAGAGTA - 9120
   - L M D G S I I Q F P N T Y L E G S V R V
- L W M V P S Y S F L T L T W R V L L E *
     Y G W F H H T V S * H L P G G F C * S S
9121 - GTAACAACTTTTGATGCTGAGTACTGTAGACATGGTACATGCGAAAGGTCAGAAGTAGGT - 9180
   -V T T F D A E Y C R H G T C E R S E V G
     * Q L L M L S T V D M V H A K G Q K * V
     NNF * C * V L * T W Y M R K V R S R Y
9181 - ATTTGCCTATCTACCAGTGGTAGATGGGTTCTTAATAATGAGCATTACAGAGCTCTATCA - 9240
   -I C L S T S G R W V L N N E H Y R A L S
     FAYLPVVDGFLIMSITELYQ
      L P I Y Q W * M G S * * * A L Q S S I R
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9241 - GGAGTTTTCTGTGGTGTTGATGCGATGAATCTCATAGCTAACATCTTTACTCCTCTTGTG - 9300
    - G V F C G V D A M N L I A N I F T P L V
- E F S V V L M R * I S * L T S L L L L C
- S F L W C * C D E S H S * H L Y S S C A
9301 - CAACCTGTGGGTGCTTTAGATGTGTCTGCTTCAGTAGTGGCTGGTGGTATTATTGCCATA - 9360
    -QPVGALDVSASVVAGGIIAI
     N L W V L * M C L L Q * W L V V L L P Y
      TCGCFRCVCFSSGWWYYCHI
9361 - TTGGTGACTTGTGCTGCCTACTACTTTATGAAATTCAGACGTGTTTTTTGGTGAGTACAAC - 9420
    -L V T C A A Y Y F M K F R R V F G E Y N
     W * L V L P T T L * N S D V F L V S T T
      G D L C C L L L Y E I Q T C F W * V Q P
-H V V A A N A L L F L M S F T I L C L V
    - M L L L M H F C F * C L S L Y S V W Y
      C C C C * C T F V F D V F H Y T L S G T
9481 - CCAGCTTACAGCTTTCTGCCGGGAGTCTACTCAGTCTTTTACTTGTACTTGACATTCTAT - 9540
    -PAYSFLPGVYSVFYLYLTFY
    - Q L T A F C R E S T Q S F T C T * H S I
      S L Q L S A G S L L S L L L V L D I L F
9541 - TTCACCAATGATGTTTCATTCTTGGCTCACCTTCAATGGTTTTGCCATGTTTTCTCCTATT - 9600
    -FTNDVSFLAHLQWFAMFSPI
    - S P M M F H S W L T F N G L P C F L L L
      HQ * C F I L G S P S M V C H V F S Y C
9601 - GTGCCTTTTTGGATAACAGCAATCTATGTATTCTGTATTCTCTGAAGCACTGCCATTGG - 9660
    -VPFWITAIYVFCISLKHCHW
    - C L F G * Q Q S M Y S V F L * S T A I G
      A F L D N S N L C I L Y F S E A L P L V
9661 - TTCTTTAACAACTATCTTAGGAAAAGAGTCATGTTTAATGGAGTTACATTTAGTACCTTC - 9720
    -FFNNYLRKRVMFNGVTFSTF
    - S L T T I L G K E S C L M E L H L V P S
      L * Q L S * E K S H V * W S Y I * Y L R
9721 - GAGGAGGCTGCTTTGTGTACCTTTTTGCTCAACAAGGAAATGTACCTAAAATTGCGTAGC - 9780
    -EEAALCTFLLNKEMYLKLRS
    - R R L L C V P F C S T R K C T * N C V A
      G G C F V Y L F A Q Q G N V P K I A * R
9781 - GAGACACTGTTGCCACTTACACAGTATAACAGGTATCTTGCTCTATATAACAAGTACAAG - 9840
    -ETLLPLTQYNRYLALYNKYK
    - R H C C H L H S I T G I L L Y I T S T S
    - DTVATYTV * QVSCSI * QVQV
9841 - TATTTCAGTGGAGCCTTAGATACTACCAGCTATCGTGAAGCAGCTTGCTGCCACTTAGCA - 9900
    -Y F S G A L D T T S Y R E A A C C H L A
    - I S V E P * I L P A I V K Q L A A T * Q
     FQWSLRYYQLS*SSLLPLSK
-KALNDFSNSGADVLYQPPQT
    - R L * M T L A T Q V L M F S T N H H R H
     GSK*L*QLRC*CSLPTTDI
9961 - TCAATCACTTCTGCTGTTCTGCAGAGTGGTTTTAGGAAAATGGCATTCCCGTCAGGCAAA - 10020
    -SITSAVLQSGFRKMAFPSGK
-QSLLLFCRVVLGKWHSRQAK
     NHFCCSAEWF*ENGIPVRQS
10021 - GTTGAAGGGTGCATGGTACAAGTAACCTGTGGAACTACAACTCTTAATGGATTGTGGTTG - 10080
    -VEGCMVQVTCGTTTLNGLWL
     LKGAWYK*PVELQLLMDCGW
       R V H G T S N L W N Y N S * W I V V G
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10081 - GATGACACAGTATACTGTCCAAGACATGTCATTTGCACAGCAGAAGACATGCTTAATCCT - 10140
    -DDTVYCPRHVICTAEDMLNP
     M T Q Y T V Q D M S F A Q Q K T C L I L
        HSILSKTCHLHSRRHA*S*
10141 - AACTATGAAGATCTGCTCATTCGCAAATCCAACCATAGCTTTCTTGTTCAGGCTGGCAAT - 10200
    -NYEDLLIRKSNHSFLVQAGN
     T M K I C S F A N P T I A F L F R L A M
L * R S A H S Q I Q P * L S C S G W Q C
10201 - GTTCAACTTCGTGTTATTGGCCATTCTATGCAAAATTGTCTGCTTAGGCTTAAAGTTGAT - 10260
    -V Q L R V I G H S M Q N C L L R L K V D
     FN F V L L A I L C K I V C L G L K L I
       S T S C Y W P F Y A K L S A * A * S * Y
10261 - ACTTCTAACCCTAAGACACCCAAGTATAAATTTGTCCGTATCCAACCTGGTCAAACATTT - 10320
    -TSNPKTPKYKFVRIQPGQTF
    - L L T L R H P S I N L S V S N L V K H F
      F * P * D T Q V * I C P Y P T W S N I F
10321 - TCAGTTCTAGCATGCTACAATGGTTCACCATCTGGTGTTTATCAGTGTGCCATGAGACCT - 10380
    -S V L A C Y N G S P S G V Y Q C A M R P
    - Q F * H A T M V H H L V F I S V P * D L
      SSSMLQWFTIWCLSVCHET*
10381 - AATCATACCATTAAAGGTTCTTTCCTTAATGGATCATGTGGTAGTGTTTGGTTTTAACATT - 10440
    -NHTIKGSFLNGSCGSVGFNI
    - I I P L K V L S L M D H V V V L V L T L
      S Y H * R F F P * W I M W * C W F * H *
10441 - GATTATGATTGCGTGTCTTTCTGCTATATGCATCATATGGAGCTTCCAACAGGAGTACAC - 10500
    -DYDCVSFCYMHHMELPTGVH
    - I M I A C L S A I C I I W S F Q O E Y T
      L * L R V F L L Y A S Y G A S N R S T R
-AGTDLEGKFYGPFVDRQTAQ
    - L V L T * K V N S M V H L L T D K L H R
      W Y * L R R * I L W S I C * Q T N C T G
10561 - GCTGCAGGTACAGACCATAACATTAAATGTTTTGGCATGGCTGTATGCTGCTGTT - 10620
    - A A G T D T T I T L N V L A W L Y A A V
    - L Q V Q T Q P * H * M F W H G C M L L L
     C R Y R H N H N I K C F G M A V C C C Y
10621 - ATCAATGGTGATAGGTGGTTTCTTAATAGATTCACCACTACTTTGAATGACTTTAACCTT - 10680
    -INGDRWFLNRFTTTLNDFNL
     S M V I G G F L I D S P L L * M T L T L
      Q W * * V V S * * I H H Y F E * L * P C
10681 - GTGGCAATGAAGTACAACTATGAACCTTTGACACAAGATCATGTTGACATATTGGGACCT - 10740
    -VAMKYNYEPLTQDHVDILGP
    - W Q * S T T M N L * H K I M L T Y W D L
      GNEVQL*TFDTRSC*HIGTS
10741 - CTTTCTGCTCAAACAGGAATTGCCGTCTTAGATATGTGTGCTGCTTTGAAAGAGCTGCTG - 10800
    -L S A Q T G I A V L D M C A A L K E L L
     FLLKQELPS*ICVLL*KSCC
      F C S N R N C R L R Y V C C F E R A A A
10801 - CAGAATGGTATGAATGGTCGTACTATCCTTGGTAGCACTATTTTAGAAGATGAGTTTACA - 10860
    -QNGMNGRTILGSTILEDEFT
     R M V * M V V L S L V A L F * K M S L H
     E W Y E W S Y Y P W * H Y F R R * V Y T
10861 - CCATTTGATGTTGTTAGACAATGCTCTGGTGTTACCTTCCAAGGTAAGTTCAAGAAAATT - 10920
    - P F D V V R Q C S G V T F Q G K F K K I
     H L M L L D N A L V L P S K V S S R K L
      I * C C * T M L W C Y L P R * V Q E N C
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10921 - GTTAAGGGCACTCATCATTGGATGCTTTTAACTTTCTTGACATCACTATTGATTCTTGTT - 10980
    -V K G T H H W M L L T F L T S L L I L V
    - L R A L I I G C F * L S * H H Y * F L F
      * G H S S L D A F N F L D I T I D S C S
10981 - CAAAGTACACAGTGGTCACTGTTTTTCTTTGTTTACGAGAATGCTTTCTTGCCATTTACT - 11040
    -QSTQWSLFFFVYENAFLPFT
    - K V H S G H C F S L F T R M L S C H L L
       K Y T V V T V F L C L R E C F L A I Y S
11041 - CTTGGTATTATGGCAATTGCTGCATGTGCTATGCTGCTTGTTAAGCATAAGCACGCATTC - 11100
    -LGIMAIAACAMLLVKHKHAF
    - L V L W Q L L H V L C C L L S I S T H S
      W Y Y G N C C M C Y A A C * A * A R I L
11101 - TTGTGCTTGTTTCTGTTACCTTCTTGCAACAGTTGCTTACTTTAATATGGTCTACATG - 11160
    -LCLFLLPSLATVAYFNMVYM
    - C A C F C Y L L L Q Q L L T L I W S T C .
       V L V S V T F S C N S C L L * Y G L H A
11161 - CCTGCTAGCTGGTGATGCGTATCATGACATGGCTTGAATTGGCTGACACTAGCTTGTCT - 11220
    -PASWVMRIMTWLELADTSLS
    - L L A G * C V S * H G L N W L T L A C L
      C * L G D A Y H D M A * I G * H * L V W
11221 - GGTTATAGGCTTAAGGATTGTGTTATGTATGCTTCAGCTTTAGTTTTGCTTATTCTCATG - 11280
    -GYRLKDCVMYASALVLLILM
     VIGLRIVLCMLQL*FCLFS*
      L * A * G L C Y V C F S F S F A Y S H D
11281 - ACAGCTCGCACTGTTTATGATGATGCTGCTAGACGTGTTTGGACACTGATGAATGTCATT - 11340
    -TARTVYDDAARRVWTLMNVI
     Q L A L F M M M L L D V F G H * * M S L
       S S H C L * * C C * T C L D T D E C H Y
11341 - ACACTTGTTTACAAAGTCTACTATGGTAATGCTTTAGATCAAGCTATTTCCATGTGGGCC - 11400
    -TLVYKVYYGNALDQAISMWA
     H L F T K S T M V M L * I K L F P C G P
      TCLQSLLW*CFRSSYFHVGL
11401 - TTAGTTATTTCTGTAACCTCTAACTATTCTGGTGTCGTTACGACTATCATGTTTTTAGCT - 11460
    -L V I S V T S N Y S G V V T T I M F L A
      * L F L * P L T I L V S L R L S C F * L
       SYFCNL * LFWCRYDYHVFS *
11461 - AGAGCTATAGTGTTTGTGTGTGTGTGTATTTACCCATTGTTATTTACTGGCAACACC - 11520
    -RAIVFVCVEYYPLLFITGNT
-EL*CLCVLSITHCYLLLATP
      S Y S V C V C * V L P I V I Y Y W Q H L
11521 - TTACAGTGTATCATGCTTGTTTATTGTTTCTTAGGCTATTGTTGCTGCTGCTACTTTGGC - 11580
    -LQCIMLVYCFLGYCCCYFG
      Y S V S C L F I V S * A I V A A A T L A
      TVYHACLLFLRLLLLLWP
11581 - CTTTTCTGTTTACTCAACCGTTACTTCAGGCTTACTCTTGGTGTTTATGACTACTTGGTC - 11640
    -L F C L L N R Y F R L T L G V Y D Y L V
     F S V Y S T V T S G L L L V F M T T W S
     F L F T Q P L L Q A Y S W C L * L L G L
11641 - TCTACACAAGAATTTAGGTATATGAACTCCCAGGGGCTTTTGCCTCCTAAGAGTAGTATT - 11700
    -STQEFRYMNSQGLLPPKSSI
     L H K N L G I * T P R G F C L L R V V L
     YTRI*VYELPGAFAS*E*Y*
11701 - GATGCTTTCAAGCTTAACATTAAGTTGTTGGGTATTGGAGGTAAACCATGTATCAAGGTT - 11760
    -DAFKLNIKLLGIGGKPCIKV
    - M L S S L T L S C W V L E V N H V S R L
      C F Q A * H * V V G Y W R * T M Y Q G C
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11761 - GCTACTGTACAGTCTAAAATGTCTGACGTAAAGTGCACATCTGTGGTACTGCTCTCGGTT - 11820
    - A T V Q S K M S D V K C T S V V L L S V
    - L L Y S L K C L T * S A H L W Y C S R F
       Y C T V * N V * R K V H I C G T A L G S
11821 - CTTCAACAACTTAGAGTAGAGTCATCTTCTAAATTGTGGGCACAATGTGTACAACTCCAC - 11880
    -LQQLRVESSSKLWAQCVQLH
    - F N N L E * S H L L N C G H N V Y N S T
       STT * SR V I F * I V G T M C T T P Q
11881 - AATGATATTCTTCTTGCAAAAGACACAACTGAAGCTTTCGAGAAGATGGTTTCTCTTTTG - 11940
    -NDILLAKDTTEAFEKMVSLL
    - M I F F L Q K T Q L K L S R R W F L F C
       * Y S S C K R H N * S F R E D G F S F V
11941 - TCTGTTTTGCTATCCATGCAGGGTGCTGTAGACATTAATAGGTTGTGCGAGGAAATGCTC - 12000
    -SVLLSMQGAVDINRLCEEML
    - L F C Y P C R V L * T L I G C A R K C S
       C F A I H A G C C R H * * V V R G N A R
12001 - GATAACCGTGCTACTCTTCAGGCTATTGCTTCAGAATTTAGTTCTTTACCATCATATGCC - 12060
    -DNRATLQAIASEFSSLPSYA
    - I T V L L F R L L L Q N L V L Y H H M P
      * P C Y S S G Y C F R I * F F T I I C R
12061 - GCTTATGCCACTGCCCAGGAGGCCTATGAGCAGGCTGTAGCTAATGGTGATTCTGAAGTC - 12120
    -AYATAQEAYEQAVANGDSEV
      L M P L P R R P M S R L * L M V I L K S
      L C H C P G G L * A G C S * W * F * S R
12121 - GTTCTCAAAAAGTTAAAGAAATCTTTGAATGTGGCTAAATCTGAGTTTTGACCGTGATGCT - 12180
    -V L K K L K K S L N V A K S E F D R D A
- F S K S * R N L * M W L N L S L T V M L
       S Q K V K E I F E C G * I * V * P * C C
12181 - GCCATGCAACGCAAGTTGGAAAAGATGGCAGATCAGGCTATGACCCAAATGTACAAACAG - 12240
    - A M Q R K L E K M A D Q A M T Q M Y K Q
- P C N A S W K R W Q I R L * P K C T N R
      HATQVGKDGRSGYDPNVQTG
12241 - GCAAGATCTGAGGACAAGAGGGCAAAAGTAACTAGTGCTATGCAAACAATGCTCTTCACT - 12300
    -ARSEDKRAKVTSAMQTMLFT
      Q D L R T R G Q K * L V L C K Q C S S L
      KI * G Q E G K S N * C Y A N N A L H Y
12301 - ATGCTTAGGAAGCTTGATAATGATGCACTTAACAACATTATCAACAATGCGCGTGATGGT - 12360
    - M L R K L D N D A L N N I I N N A R D G
      C L G S L I M M H L T T L S T M R V M V A * E A * * * C T * Q H Y Q Q C A * W L
12361 - TGTGTTCCACTCAACATCATACCATTGACTACAGCAGCCAAACTCATGGTTGTTCTCCT - 12420
    -CVPLNIIPLTTAAKLMVVVP
      V F H S T S Y H * L Q Q P N S W L L S L
    - CSTQHHTIDYSSQTHGCCP*
12421 - GATTATGGTACCTACAAGAACACTTGTGATGGTAACACCTTTACATATGCATCTGCACTC - 12480
    -DYGTYKNTCDGNTFTYASAL
    - I M V P T R T L V M V T P L H M H L H S
     LWYLQEHL*W*HLYICICTL
12481 - TGGGAAATCCAGCAAGTTGTTGATGCGGATAGCAAGATTGTTCAACTTAGTGAAATTAAC - 12540
    -WEIQQVVDADSKIVQLSEIN
    - G K S S K L L M R I A R L F N L V K L T
     G N P A S C * C G * Q D C S T * * N * H
12541 - ATGGACAATTCACCAAATTTGGCTTGGCCTCTTATTGTTACAGCTCTAAGAGCCAACTCA - 12600
    - M D N S P N L A W P L I V T A L R A N S
     WTIHQIWLGLLLLQL*EPTQ
       G Q F T K F G L A S Y C Y S S K S Q L S
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12601 - GCTGTTAAACTACAGAATAATGAACTGAGTCCAGTAGCACTACGACAGATGTCCTGTGCG - 12660
    - A V K L Q N N E L S P V A L R Q M S C A
    - L L N Y R I M N * V Q * H Y D R C P V R
       C * T T E * * T E S S S T T T D V L C G
12661 - GCTGGTACCACACAACAGCTTGTACTGATGACAATGCACTTGCCTACTATAACAATTCG - 12720
    - A G T T Q T A C T D D N A L A Y Y N N S
    - L V P H K Q L V L M T M H L P T I T I R
      W Y H T N S L Y * * Q C T C L L * Q F E
12721 - AAGGGAGGTAGGTTTGTGCTGGCATTACTATCAGACCACCAAGATCTCAAATGGGCTAGA - 12780
    -KGGRFVLALLSDHQDLKWAR
    - R E V G L C W H Y Y Q T T K I S N G L D
      GR * V C A G I T I R P P R S Q M G * I
12781 - TTCCCTAAGAGTGATGGTACAGGTACAATTTACACAGAACTGGAACCACCTTGTAGGTTT - 12840
    - F P K S D G T G T I Y T E L E P P C R F
    - S L R V M V Q V Q F T Q N W N H L V G L
       P * E * W Y R Y N L H R T G T T L * V C
12841 - GTTACAGACACCAAAAGGGCCTAAAGTGAAATACTTGTACTTCATCAAAGGCTTAAAC - 12900
    -V T D T P K G P K V K Y L Y F I K G L N
    - L Q T H Q K G L K * N T C T S S K A * T
      YRHTKRA*SEILVLHORLKO
12901 - AACCTAAATAGAGGTATGGTGCTGGGCAGTTTAGCTGCTACAGTACGTCTTCAGGCTGGA - 12960
    -NLNRGMVLGSLAATVRLQAG
    - T * I E V W C W A V * L L Q Y V F R L E
      PK * RYGAGQFSCYSTSSGWK
12961 - AATGCTACAGAAGTACCTGCCAATTCAACTGTGCTTTCCTGTGCTTTTTGCAGTAGAC - 13020
    -NATEVPANSTVLSFCAFAVD
    - M L Q K Y L P I Q L C F P S V L L Q * T
      CYRSTCQFNCAFLLCFCSRP
13021 - CCTGCTAAAGCATATAAGGATTACCTAGCAAGTGGAGGACAACCAATCACCAACTGTGTG - 13080
    - P A K A Y K D Y L A S G G Q P I T N C V
    - L L K H I R I T * Q V E D N Q S P T V *
      C * S I * G L P S K W R T T N H Q L C E
13081 - AAGATGTTGTGTACACACACTGGTACAGGACAGGCAATTACTGTAACACCAGAAGCTAAC - 13140
    -KMLCTHTGTGQAITVTPEAN
     R C C V H T L V Q D R Q L L * H Q K L T
      D V V Y T H W Y R T G N Y C N T R S * H
13141 - ATGGACCAAGAGTCCTTTGGTGGTGCTTCATGTTGTCTGTATTGTAGATGCCACATTGAC - 13200
    - M D Q E S F G G A S C C L Y C R C H I D
- W T K S P L V V L H V V C I V D A T L T
      GPRVLWWCFMLSVL*MPH*P
- H P N P K G F C D L K G K Y V Q I P T T
     I Q I L K D S V T * K V S T S K Y L P L
      S K S * R I L * L E R * V R P N T Y H L
13261 - TGTGCTAATGACCCAGTGGGTTTTACACTTAGAAACACAGTCTGTACCGTCTGCGGAATG - 13320
    -CANDPVGFTLRNTVCTVCGM
    - V L M T Q W V L H L E T Q S V P S A E C
     C * * P S G F Y T * K H S L Y R L R N V
13321 - TGGAAAGGTTATGGCTGTAGTTGTGACCAACTCCGCGAACCCTTGATGCAGTCTGCGGAT - 13380
    -W K G Y G C S C D Q L R E P L M Q S A D
    - G K V M A V V V T N S A N P * C S L R M
     ERLWL * L * PTPRTLDAVCGC
13381 - GCATCAACGTTTTTAAACGGGTTTGCGGTGTAAGTGCAGCCCGTCTTACACCGTGCGGCA - 13440
    - A S T F L N G F A V * V Q P V L H R A A
     HQRF * TGLRCKCSPSYTVRH
      I N V F K R V C G V S A A R L T P C G T
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13441 - CAGGCACTAGTACTGATGTCGTCTACAGGGCTTTTGATATTTACAACGAAAAAAGTGCTG - 13500
    -QALVLMSSTGLLIFTTKKVL
    - R H * Y * C R L Q G F * Y L Q R K K C W
       G T S T D V V Y R A F D I Y N E K S A G
13501 - GTTTTGCAAAGTTCCTAAAAACTAATTGCTGTCGCTTCCAGGAGAAGGATGAGGAAGGCA - 13560
    -V L Q S S * K L I A V A S R R R M R K A
    - F C K V P K N * L L S L P G E G * G R Q
       F A K F L K T N C C R F Q E K D E E G N
13561 - ATTTATTAGACTCTTACTTTGTAGTTAAGAGGCATACTATGTCTAACTACCAACATGAAG - 13620
    -IY * TLTL * LRGILCLTTNMK
    - FIRLLCS * EAYYV * LPT * R
       L L D S Y F V V K R H T M S N Y Q H E E
13621 - AGACTATTTATAACTTGGTTAAAGATTGTCCAGCGGTTGCTGTCCATGACTTTTTCAAGT - 13680
    -RLFITWLKIVQRLLSMTFSS
    - D Y L * L G * R L S S G C C P * L F O V
       T I Y N L V K D C P A V A V H D F F K F
- L E * M V T W Y H I Y H V S V * L N T Q - * S R W * H G T T Y I T S A S N * I H N
      R V D G D M V P H I S R Q R L T K Y T M
13741 - TGGCTGATTTAGTCTATGCTCTACGTCATTTTGATGAGGGTAATTGTGATACATTAAAAG - 13800
    -W L I * S M L Y V I L M R V I V I H * K
    - G * F S L C S T S F * * G * L * Y I K R
      ADLVYALRHFDEGNCDTLKE
13801 - AAATACTCGTCACATACAATTGCTGTGATGATGATTATTTCAATAAGAAGGATTGGTATG - 13860
    -KYSSHTIAVMMIISIRRIGM
    - N T R H I Q L L * * * L F Q * E G L V *
      I L V T Y N C C D D D Y F N K K D W Y D
13861 - ACTTCGTAGAGAATCCTGACATCTTACGCGTATATGCTAACTTAGGTGAGCGTGTACGCC - 13920
    - T S * R I L T S Y A Y M L T * V S V Y A
- L R R E S * H L T R I C * L R * A C T P
      F V E N P D I L R V Y A N L G E R V R Q
13921 - AATCATTATTAAAGACTGTACAATTCTGCGATGCTATGCGTGATGCAGGCATTGTAGGCG - 13980
    -NHY*RLYNSAMLCVMQAL*A
      I I I K D C T I L R C Y A * C R H C R R
      S L L K T V Q F C D A M R D A G I V G V
13981 - TACTGACATTAGATAATCAGGATCTTAATGGGAACTGGTACGATTTCGGTGATTTCGTAC - 14040
    -Y * H * I I R I L M G T G T I S V I S Y
      T D I R * S G S * W E L V R F R * F R T
      L T L D N Q D L N G N W Y D F G D F V Q
14041 - AAGTAGCACCAGGCTGCGGAGTTCCTATTGTGGATTCATATTACTCATTGCTGATGCCCA - 14100
    -K * H Q A A E F L L W I H I T H C * C P
      S S T R L R S S Y C G F I L L I A D A H
      V A P G C G V P I V D S Y Y S L L M P I
14101 - TCCTCACTTTGACTAGGGCATTGGCTGCTGAGTCCCATATGGATGCTGATCTCGCAAAAC - 14160
    -SSL * L G H W L L S P I W M L I S Q N
      P H F D * G I G C * V P Y G C * S R K T
     LTLTRALAAESHMDADLAKP
14161 - CACTTATTAAGTGGGATTTGCTGAAATATGATTTTACGGAAGAGAGACTTTGTCTCTTCG - 14220
    \hbox{-} \hbox{H $L$ L $S$ G I $C$ * $N$ M I $L$ R $K$ R $D$ F $V$ $S$}
     TY * V G F A E I * F Y G R E T L S L R
      LIKWDLLKYDFTEERLCLFD
14221 - ACCGTTATTTTAAATATTGGGACCAGACATACCATCCCAATTGTATTAACTGTTTGGATG - 14280
    -TVILNIGTRHTIPIVLTVWM
     PLF * I L G P D I P S Q L Y * L F G *
       RYFKYWDQTYHPNCINCLDD
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14281 - ATAGGTGTATCCTTCATTGTGCAAACTTTAATGTGTTATTTTCTACTGTGTTTCCACCTA - 14340
    -I G V S F I V Q T L M C Y F L L C F H L
     * V Y P S L C K L * C V I F Y C V S T Y
      RCILHCANFNVLFSTVFPPT
14341 - CAAGTTTTGGACCACTAGTAAGAAAAATATTTGTAGATGGTGTTCCTTTTGTTGTTTCAA - 14400
    -Q V L D H * * E K Y L * M V F L L L F Q
    - K F W T T S K K N I C R W C S F C C F N
      S F G P L V R K I F V D G V P F V V S T
14401 - CTGGATACCATTTTCGTGAGTTAGGAGTCGTACATAATCAGGATGTAAACTTACATAGCT - 14460
    -LDTIFVS*ESYIIRM*TYIA
    - WIPFS * V R S R T * S G C K L T * L
      G Y H F R E L G V V H N Q D V N L H S S
-RVSVSRNF * CMLLIQLCMQL
    - A S Q F Q G T F S V C C * S S Y A C S F
      R L S F K E L L V Y A A D P A M H A A S
-LAIYC * INALHAFQ * LH * Q T
    - W Q F I A R * T H Y M L F S S C T N K O
      G N L L L D K R T T C F S V A A L T N N
14581 - ATGTTGCTTTTCAAACTGTCAAACCCGGTAATTTTAATAAAGACTTTTATGACTTTGCTG - 14640
    -M L L F K L S N P V I L I K T F M T L L
    - C C F S N C Q T R * F * * R L L * L C C
      V A F Q T V K P G N F N K D F Y D F A V
14641 - TGTCTAAAGGTTTCTTTAAGGAAGGAAGTTCTGTTGAACTAAAACACTTCTTCTTTGCTC - 14700
    -CLKVSLRKEVLLN * NTSSLL
    - V * R F L * G R K F C * T K T L L C S
      S K G F F K E G S S V E L K H F F F A Q
14701 - AGGATGGCAACGCTGCTATCAGTGATTATGACTATTATCGTTATAATCTGCCAACAATGT - 14760
    \hbox{--R M A T L L S V I M T I I V I I C Q Q C}
    - G W Q R C Y Q * L * L L S L * S A N N V
      D G N A A I S D Y D Y Y R Y N L P T M C
14761 - GTGATATCAGACACTCCTATTCGTAGTTGAAGTTGTTGATAAATACTTTGATTGTTACG - 14820
    -VISDNSYS * LKLLINTLIVT
     * Y Q T T P I R S * S C * * I L * L L R
      DIRQLLFVVEVVDKYFDCYD
14821 - ATGGTGGCTGTATTAATGCCAACCAAGTAATCGTTAACAATCTGGATAAATCAGCTGGTT - 14880
    -MVAVLMPTK*SLTIWINQLV
     W W L Y * C Q P S N R * Q S G * I S W F
     G G C I N A N Q V I V N N L D K S A G F
14881 - TCCCATTTAATAAATGGGGTAAGGCTAGACTTTATTATGACTCAATGAGTTATGAGGATC - 14940
    -SHLINGVRLDFIMTQ * VMRI
     P I * * M G * G * T L L * L N E L * G S
      P F N K W G K A R L Y Y D S M S Y E D O
14941 - AAGATGCACTTTTCGCGTATACTAAGCGTAATGTCATCCCTACTATAACTCAAATGAATC - 15000
    -KMHFSRILSVMSSLL*LK*I
     R C T F R V Y * A * C H P Y Y N S N E S
     DALFAYTKRNVIPTITOMNL
15001 - TTAAGTATGCCATTAGTGCAAAGAATAGAGCTCGCACCGTAGCTGGTGTCTCTATCTGTA - 15060
    -LSMPLVQRIELAP*LVSLSV
     * V C H * C K E * S S H R S W C L Y L *
     K Y A I S A K N R A R T V A G V S I C S
15061 - GTACTATGACAATAGACAGTTTCATCAGAAATTATTGAAGTCAATAGCCGCCACTAGAG - 15120
    -VL * Q I D S F I R N Y * S Q * P P L E
    - Y Y D K * T V S S E I I E V N S R H * R
      T M T N R Q F H Q K L L K S I A A T R G
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-ELLW * LEQASFTVAGIIC * K
    - S Y C G N W N K Q V L R W L A * Y V K N
      A T V V I G T S K F Y G G W H N M L K T
15181 - CTGTTTACAGTGATGTAGAAACTCCACACCTTATGGGTTGGGATTATCCAAAATGTGACA - 15240
    -LFTVM * KLHTLW V G I I Q N V T
    - C L Q * C R N S T P Y G L G L S K M * Q
      V Y S D V E T P H L M G W D Y P K C D R
15241 - GAGCCATGCCTAACATGCTTAGGATAATGGCCTCTCTTGTTCTTGCTCGCAAACATAACA - 15300
    -EPCLTCLG * WPLLFLANIT
    - S H A * H A * D N G L S C S Q T * H
      AMPNMLRIMASLVLARKHNT
15301 - CTTGCTGTAACTTATCACACCGTTTCTACAGGTTAGCTAACGAGTGTGCGCAAGTATTAA - 15360
    -LAVTYHTVSTG*LTSVRKY*
    - L L * L I T P F L Q V S * R V C A S I K
      C C N L S H R F Y R L A N E C A O V L S
15361 - GTGAGATGGTCATGTGTGGCGGCTCACTATATGTTAAACCAGGTGGAACATCATCCGGTG - 15420
    -V R W S C V A A H Y M L N Q V E H H P V
     * D G H V W R L T I C * T R W N I I R *
      E M V M C G G S L Y V K P G G T S S G D
15421 - ATGCTACAACTGCTTATGCTAATAGTGTCTTTAACATTTGTCAAGCTGTTACAGCCAATG - 15480
    - M L Q L L M L I V S L T F V K L L Q P M
    - C Y N C L C * * C L * H L S S C Y S Q C
     ATTAYANSVFNICQAVTANV
15481 - TAAATGCACTTCTTTCAACTGATGGTAATAAGATAGCTGACAAGTATGTCCGCAATCTAC - 15540
    - * M H F F Q L M V I R * L T S M S A I Y
    - K C T S F N * W * * D S * Q V C P Q S T
     N A L L S T D G N K I A D K Y V R N L Q
15541 - AACACAGGCTCTATGAGTGTCTCTATAGAAATAGGGATGTTGATCATGAATTCGTGGATG - 15600
    -N T G S M S V S I E I G M L I M N S W M
    - T Q A L * V S L * K * G C * S * I R G *
     HRLYECLYRNRDVDHEFVDE
-SFTLTCVNISP**FFLMMPL
    V L R L P A * T F L H D D S F * * C R C
      F Y A Y L R K H F S M M I L S D D A V V
15661 - TGTGCTATAACAGTAACTATGCGGCTCAAGGTTTAGTAGCATTAAGAACTTTAAGG - 15720
    -CAITVTMRLKV**LALRTLR
     V L * Q * L C G S R F S S * H * E L * G
      C Y N S N Y A A Q G L V A S I K N F K A
15721 - CAGTTCTTTATTATCAAAATAATGTGTTCATGTCTGAGGCAAAATGTTGGACTGAGACTG - 15780
    -QFFIIKIMCSCLRQNVGLRL
     SSLLSK * CVHV * GKMLD * D
     V L Y Y Q N N V F M S E A K C W T E T D
15781 - ACCTTACTAAAGGACCTCACGAATTTTGCTCACAGCATACAATGCTAGTTAAACAAGGAG - 15840
    -TLLKDLTNFAHSIQC * LNKE
     PY*RTSRILLTAYNAS*TRR
     LTKGPHEFCSQHTMLVKQGD
15841 - ATGATTACGTGTACCTGCCTTACCCAGATCCATCAAGAATATTAGGCGCAGGCTGTTTTG - 15900
   -MITCTCLTQIHQEY*AQAVL
     * L R V P A L P R S I K N I R R R L F C
   - DYVYLPYPDPSRILGAGCFV
15901 - TCGATGATATTGTCAAAACAGATGGTACACTTATGATTGAAAGGTTCGTGTCACTGGCTA - 15960
   -S M I L S K Q M V H L * L K G S C H W L
     R * Y C Q N R W Y T Y D * K V R V T G Y
      D D I V K T D G T L M I E R F V S L A I
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15961 - TTGATGCTTACCCACTTACAAAACATCCTAATCAGGAGTATGCTGATGTCTTTCACTTGT - 16020
     -L M L T H L Q N I L I R S M L M S F T C
      * C L P T Y K T S * S G V C * C L S L V
       DAYPLTKHPNQEYADVFHLY
 16021 - ATTTACAATACATTAGAAAGTTACATGATGAGCTTACTGGCCACATGTTGGACATGTATT - 16080
     -I Y N T L E S Y M M S L L A T C W T C I
     - F T I H * K V T * * A Y W P H V G H V F
       LQYIRKLHDELTGHMLDMYS
 16081 - CCGTAATGCTAACTAATGATAACACCTCACGGTACTGGGAACCTGAGTTTTATGAGGCTA - 16140
     -P * C * L M I T P H G T G N L S F M R L
     - R N A N * * * H L T V L G T * V L * G Y
       V M L T N D N T S R Y W E P E F Y E A M
 16141 - TGTACACACCACATACAGTCTTGCAGGCTGTAGGTGCTTGTGTATTGTGCAATTCACAGA - 16200
     -CTHHIQSCRL*VLVYCAIHR
     - V H T T Y S L A G C R C L C I V O F T D
       Y T P H T V L Q A V G A C V L C N S Q T
 16201 - CTTCACTTCGTTGCGGTGCCTGTATTAGGAGACCATTCCTATGTTGCAAGTGCTGCTATG - 16260
     -L H F V A V P V L G D H S Y V A S A A M
     - FTSLRCLY*ETIPMLOVLL*
       S L R C G A C I R R P F L C C K C C Y D
16261 - ACCATGTCATTCAACATCACAAATTAGTGTTGTCTGTTAATCCCTATGTTTGCAATG - 16320
     -T M S F Q H H T N * C C L L I P M F A M
     - P C H F N I T Q I S V V C * S L C L Q C
      H V I S T S H K L V L S V N P Y V C N A
16321 - CCCCAGGTTGTGATGTCACTGATGTGACACACTGTATCTAGGAGGTATGAGCTATTATT - 16380
     -PQVVMSLM*HNCI*EV*AII
     - P R L * C H * C D T T V S R R Y E L L L
       P G C D V T D V T Q L Y L G G M S Y Y C
16381 - GCAAGTCACATAAGCCTCCCATTAGTTTTCCATTATGTGCTAATGGTCAGGTTTTTGGTT - 16440
     -ASHISLPLVFHYVLMVRFLV
     Q V T * A S H * F S I M C * W S G F W F
      K S H K P P I S F P L C A N G Q V F G L
16441 - TATACAAAAACACATGTGTAGGCAGTGACAATGTCACTGACTTCAATGCGATAGCAACAT - 16500
     -YTKTHV * AVTMSLTSMR * QH
      I Q K H M C R Q * Q C H * L Q C D S N M
       YKNTCVGSDNVTDFNAIATC
16501 - GTGATTGGACTAATGCTGGCGATTACATACTTGCCAACACTTGTACTGAGAGACTCAAGC - 16560
    -VIGLMLAITYLPTLVLRDSS
-*LD*CWRLHTCQHLY*ETQA
      D W T N A G D Y I L A N T C T E R L K L
16561 - TTTTCGCAGCAGAAACGCTCAAAGCCACTGAGGAAACATTTAAGCTGTCATATGGTATTG - 16620
     -FSQQKRSKPLRKHLSCHMVL
      FRSRNAQSH*GNI*AVIWYC
       F A A E T L K A T E E T F K L S Y G I A
16621 - CCACTGTACGCGAAGTACTCTCTGACAGAGAATTGCATCTTTCATGGGAGGTTGGAAAAC - 16680
    - P L Y A K Y S L T E N C I F H G R L E N
     HCTRSTL * QRIASFMGGWKT
      TVREVLSDRELHLSWEVGKP
16681 - CTAGACCACCATTGAACAGAAACTATGTCTTTACTGGTTACCGTGTAACTAAAAATAGTA - 16740
    -LDHH*TETMSLLVTV*LKIV
      * T T I E Q K L C L Y W L P C N * K * *
      RPPLNRNYVFTGYRVTKNSK
16741 - AAGTACAGATTGGAGAGTACACCTTTGAAAAAGGTGACTATGGTGATGCTGTTGTGTACA - 16800
    -KYRLESTPLKKVTMVMLLCT
     STDWRVHL * KR * LW * CCCVQ
       V Q I G E Y T F E K G D Y G D A V V Y R
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16801 - GAGGTACTACGACATACAAGTTGAATGTTGGTGATTACTTTGTGTTGACATCTCACACTG - 16860
    -EVLRHTS * MLVITLC * HLTL
     RYYDIQVECW*LLCVDISHC
       G T T T Y K L N V G D Y F V L T S H T V
16861 - TAATGCCACTTAGTGCACCTACTCTAGTGCCACAAGAGCACTATGTGAGAATTACTGGCT - 16920
    - * C H L V H L L * C H K S T M * E L L A
    - NAT * CTYSSATRALCENYW L
       M P L S A P T L V P Q E H Y V R I T G L
16921 - TGTACCCAACACTCAACATCTCAGATGAGTTTTCTAGCAATGTTGCAAATTATCAAAAGG - 16980
    -CTQHSTSQMSFLAMLQIIKR
     V P N T Q H L R * V F * Q C C K L S K G
       Y P T L N I S D E F S S N V A N Y Q K V
16981 - TCGGCATGCAAAAGTACTCTACACTCCAAGGACCACCTGGTACTGGTAAGAGTCATTTTG - 17040
    -SACKSTLHSKDHLVLVRVIL
    - R H A K V L Y T P R T T W Y W * E S F C
       G M Q K Y S T L Q G P P G T G K S H F A
17041 - CCATCGGACTTGCTCTATTACCCATCTGCTCGCATAGTGTATACGGCATGCTCTCATG - 17100
    -PSDLLSITHLLA*CIRHALM
    - H R T C S L L P I C S H S V Y G M L S C
       I G L A L Y Y P S A R I V Y T A C S H A
17101 - CAGCTGTTGATGCCCTATGTGAAAAGGCATTAAAATATTTGCCCATAGATAAATGTAGTA - 17160
    -Q L L M P Y V K R H * N I C P * I N V V
    - S C * C P M * K G I K I F A H R * M *
       A V D A L C E K A L K Y L P I D K C S R
17161 - GAATCATACCTGCGCGTGCGCGTAGAGTGTTTTGATAAATTCAAAGTGAATTCAACAC - 17220
    -ESYLRVRA*SVLINSK*IQH
    - N H T C A C A R R V F * * I Q S E F N T
       I I P A R A R V E C F D K F K V N S T L
17221 - TAGAACAGTATGTTTTCTGCACTGTAAATGCATTGCCAGAAACAACTGCTGACATTGTAG - 17280
    - * N S M F S A L * M H C Q K Q L L T L *
    - R T V C F L H C K C I A R N N C * H C S
      EQYVFCTVNALPETTADIVV
17281 - TCTTTGATGAAATCTCTATGGCTACTAATTATGACTTGAGTGTTGTCAATGCTAGACTTC - 17340
    -SLMKSLWLLIMT * VLSMLDF
     L * * N L Y G Y * L * L E C C Q C * T S
       F D E I S M A T N Y D L S V V N A R L R
17341 - GTGCAAAACACTACGTCTATATTGGCGATCCTGCTCAATTACCAGCCCCCGCACATTGC - 17400
    -VQNTTSILAILLNYQPPAHC-CKTLRLYWRSCSITSPPHIA
       A K H Y V Y I G D P A Q L P A P R T L L
17401 - TGACTAAAGGCACACTAGAACCAGAATATTTTAATTCAGTGTGCAGACTTATGAAAACAA - 17460
    - * L K A H * N Q N I L I Q C A D L * K Q - D * R H T R T R I F * F S V Q T Y E N N
      T K G T L E P E Y F N S V C R L M K T I
17461 - TAGGTCCAGACATGTTCCTTGGAACTTGTCGCCGTTGTCCTGCAAATTGTTGACACTG - 17520
    - * V Q T C S L E L V A V V L L K L L T L
      R S R H V P W N L S P L S C * N C * H C
      G P D M F L G T C R R C P A E I V D T V
17521 - TGAGTGCTTTAGTTTATGACAATAAGCTAAAAGCACACAAGGATAAGTCAGCTCAATGCT - 17580
    - * V L * F M T I S * K H T R I S Q L N A
      S A L V Y D N K L K A H K D K S A Q C F
17581 - TCAAAATGTTCTACAAAGGTGTTATTACACATGATGTTTCATCTGCAATCAACAGACCTC - 17640
    -SKCSTKVLLHMMFHLQSTDL
     Q N V L Q R C Y Y T * C F I C N Q Q T S
       K M F Y K G V I T H D V S S A I N R P O
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17641 - AAATAGGCGTTGTAAGAGAATTTCTTACACGCAATCCTGCTTGGAGAAAAGCTGTTTTTA - 17700
    -K * A L * E N F L H A I L L G E K L F L
     N R R C K R I S Y T Q S C L E K S C F Y
      I G V V R E F L T R N P A W R K A V F I
17701 - TCTCACCTTATAATTCACAGAACGCTGTAGCTTCAAAAATCTTAGGATTGCCTACGCAGA - 17760
    -SHLIIHRTL * LQKS * DCLRR
    - LTL * FTERCSFKNLRIAYAD
      S P Y N S Q N A V A S K I L G L P T Q T
17761 - CTGTTGATTCATCACAGGGTTCTGAATATGACTATGTCATATTCACACAAACTACTGAAA - 17820
    -LLIHHRVLNMTMSYSHKLLK
    - C * F I T G F * I * L C H I H T N Y * N
      V D S S Q G S E Y D Y V I F T Q T T E T
17821 - CAGCACACTCTTGTAATGTCAACCGCTTCAATGTGGCTATCACAAGGGCAAAAATTGGCA - 17880
    -QHTLVMSTASMWLSQGQKLA
     STLL * CQPLQCGYHKGKNWH
      A H S C N V N R F N V A I T R A K I G I
17881 - TTTTGTGCATAATGTCTGATAGAGATCTTTATGACAAACTGCAATTTACAAGTCTAGAAA - 17940
    -FCA * CLIEIFM TNCNLOV * K
    - F V H N V * * R S L * Q T A I Y K S R N
      L C I M S D R D L Y D K L Q F T S L E I
17941 - TACCACGTCGCAATGTGGCTACATTACAAGCAGAAAATGTAACTGGACTTTTTAAGGACT - 18000
    -YHVAMWLHYKQKM*LDFLRT
    - TTSQCGYITSRKCNWTF * G L
      PRRNVATLQAENVTGLFKDC
18001 - GTAGTAAGATCATTACTGGTCTTCATCCTACACAGGCACCTACACACCTCAGCGTTGATA - 18060
    -VVRSLLVFILHRHLHTSALI
     * * D H Y W S S S Y T G T Y T P Q R * Y
     S K I I T G L H P T Q A P T H L S V D I
18061 - TAAAATTCAAGACTGAAGGATTATGTGTTGACATACCAGGCATACCAAAGGACATGACCT - 18120
    - * N S R L K D Y V L T Y Q A Y Q R T * P
    - KIQD * RIMC * HTRHTKGHDL
     K F K T E G L C V D I P G I P K D M T Y
18121 - ACCGTAGACTCATCTCTATGATGGGTTTCAAAATGAATTACCAAGTCAATGGTTACCCTA - 18180
    -T V D S S L * W V S K * I T K S M V T L
     P * T H L Y D G F Q N E L P S Q W L P *
      R R L I S M M G F K M N Y O V N G Y P N
-ICLSPAKKLFVTFVRGLALM
     Y V Y H P R R S Y S S R S C V D W L * C
      M F I T R E E A I R H V R A W I G F D V
- * R A V M Q L E M L W V L T Y L S S * D
     RGLSCN*RCCGY*PTSPARI
     EGCHATRDAVGTNLPLQLGF
18301 - TTTCTACAGGTGTTAACTTAGTAGCTGTACCGACTGGTTATGTTGACACTGAAAATAACA - 18360
    -FLQVLT * * LYRLVMLTLKIT
     FYRC * LSSCTDWLC * H * K * H
      S T G V N L V A V P T G Y V D T E N N T
18361 - CAGAATTCACCAGAGTTAATGCAAAACCTCCACCAGGTGACCAGTTTAAACATCTTATAC - 18420
    -QNSPELMQNLHQVTSLNILY
     R I H Q S * C K T S T R * P V * T S Y T
    E F T R V N A K P P P G D Q F K H L I P
18421 - CACTCATGTATAAAGGCTTGCCCTGGAATGTAGTGCGTATTAAGATAGTACAAATGCTCA - 18480
   - H S C I K A C P G M * C V L R * Y K C S
     T H V * R L A L E C S A Y * D S T N A Q
      LMYKGLPWNVVRIKIVQMLS
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18481 - GTGATACACTGAAAGGATTGTCAGACAGAGTCGTGTTCGTCCTTTGGGCGCATGGCTTTG - 18540
    -VIH * KDCQTESCSSFGRMAL
     * Y T E R I V R Q S R V R P L G A W L *
      DTLKGLSDRVVFVLWAHGFE
18541 - AGCTTACATCAATGAAGTACTTTGTCAAGATTGGACCTGAAAGAACGTGTTGTCTGTGTG - 18600
    -SLHQ*STLSRLDLKERVVCV
    - A Y I N E V L C Q D W T * K N V L S V *
      LTSMKYFVKIGPERTCCLCD
18601 - ACAAACGTGCAACTTGCTTTTCTACTTCATCAGATACTTATGCCTGCTGGAATCATTCTG - 18660
    -TNVQLAFLLHQILMPAGIIL
    - Q T C N L L F Y F I R Y L C L L E S F C
      K R A T C F S T S S D T Y A C W N H S V
18661 - TGGGTTTTGACTATGTCTATAACCCATTTATGATTGATGTTCAGCAGTGGGGCTTTACGG - 18720
    -WVLTMSITHL * LMFSSGALR
    - G F * L C L * P I Y D * C S A V G L Y G
      G F D Y V Y N P F M I D V Q Q W G F T G
18721 - GTAACCTTCAGAGTAACCATGACCAACATTGCCAGGTACATGGAAATGCACATGTGGCTA - 18780
    -V T F R V T M T N I A R Y M E M H M W L
    - * P S E * P * P T L P G T W K C T C G *
     N L Q S N H D Q H C Q V H G N A H V A S
18781 - GTTGTGATGCTATCATGACTAGATGTTTAGCAGTCCATGAGTGCTTTGTTAAGCGCGTTG - 18840
    -VVMLS*LDV*QSMSALLSAL
    L * C Y H D * M F S S P * V L C * A R *
      CDAIMTRCLAVHECFVKRVD
18841 - ATTGGTCTGTTGAATACCCTATTATAGGAGATGAACTGAGGGTTAATTCTGCTTGCAGAA - 18900
    -IGLLNTLL * E M N * G L I L L A E
    L V C * I P Y Y R R * T E G * F C L Q K
     WSVEYPIIGDELRVNSACRK
18901 - AAGTACAACACATGGTTGTGAAGTCTGCATTGCTTGCTGATAAGTTTCCAGTTCTTCATG - 18960
    -KYNTWL*SLHCLLISFQFFM
    STTHGCEVCIAC**VSSSS*
     V Q H M V V K S A L L A D K F P V L H D
18961 - ACATTGGAAATCCAAAGGCTATCAAGTGTGTGCCTCAGGCTGAAGTAGAATGGAAGTTCT - 19020
    -TLEIQRLSS.VCLRLK*NGSS
     H W K S K G Y Q V C A S G * S R M E V L
     I G N P K A I K C V P Q A E V E W K F Y
19021 - ACGATGCTCAGCCATGTAGTGACAAAGCTTACAAAATAGAGGAACTCTTCTATTCTTATG - 19080
    -TMLSHVVTKLTK*RNSSILM
     R C S A M * * Q S L Q N R G T L L F L C
     D A Q P C S D K A Y K I E E L F Y S Y A
19081 - CTACACATCACGATAAATTCACTGATGGTGTTTGTTTTGGAATTGTAACGTTGATC - 19140
    -LHITINSLMVFVCFGIVTLI
     YTSR*IH*WCLFVLEL*R*S
     T H H D K F T D G V C L F W N C N V D R
19141 - GTTACCCAGCCAATGCAATTGTGTGTAGGTTTGACACAAGAGTCTTGTCAAACTTGAACT - 19200
    -VTQPMQLCVGLTQESCQT * T
     L P S Q C N C V * V * H K S L V K L E L
      Y P A N A I V C R F D T R V L S N L N L
-YQAVMVVVCM*ISMHSTLQL
     TRL * W W * F V C E * A C I P H S S F
     P G C D G G S L Y V N K H A F H T P A F
-SIKVHLLI*SNCLSFTILIV
     R * K C I Y * F K A I A F L L F * * S
      D K S A F T N L K Q L P F F Y Y S D S P
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19321 - CTTGTGAGTCTCATGGCAAACAAGTAGTGTCGGATATTGATTATGTTCCACTCAAATCTG - 19380
    -LVSLMANK * CRILIMFHSNL
     L * V S W Q T S S V G Y * L C S T Q I C
       C E S H G K Q V V S D I D Y V P L K S A
19381 - CTACGTGTATTACACGATGCAATTTAGGTGGTGCTGTTTGCAGACACCATGCAAATGAGT - 19440
    - L R V L H D A I * V V L F A D T M Q M S
     Y V Y Y T M Q F R W C C L Q T P C K * V
       T C I T R C N L G G A V C R H H A N E Y
19441 - ACCGACAGTACTTGGATGCATATAATATGATGATTTCTGCTGGATTTAGCCTATGGATTT - 19500
    -TDSTWMHII**FLLDLAYGF
     PTVLGCI*YDDFCWI*PMDL
       R Q Y L D A Y N M M I S A G F S L W I Y
19501 - ACAAACAATTTGATACTTATAACCTGTGGAATACATTTACCAGGTTACAGAGTTTAGAAA - 19560
    -TNNLILITCGIHLPGYRV * K
    - Q T I * Y L * P V E Y I Y Q V T E F R K
       K Q F D T Y N L W N T F T R L Q S L E N
19561 - ATGTGGCTTATAATGTTGTTAATAAGGACACTTTGATGGACACGCCGGCGAAGCACCTG - 19620
    -M W L I M L L I K D T L M D T P A K H L
    - C G L * C C * * R T L * W T R R R S T C
      V A Y N V V N K G H F D G H A G E A P V
19621 - TTTCCATCATTAATAATGCTGTTTACACAAAGGTAGATGGTATTGATGTGGAGATCTTTG - 19680
    -FPSLIMLFTQR*MVLMWRSL
    - F H H * * C C L H K G R W Y * C G D L *
       S I I N N A V Y T K V D G I D V E I F E
19681 - AAAATAAGACAACACTTCCTGTTAATGTTGCATTTGAGCTTTGGGCTAAGCGTAACATTA - 19740
    -KIRQHFLLMLHLSFGLSVTL
    - K * D N T S C * C C I * A L G * A * H *
      N K T T L P V N V A F E L W A K R N I K
19741 - AACCAGTGCCAGAGATTAAGATACTCAATAATTTGGGTGTTGATATCGCTGCTAATACTG - 19800
    -N Q C Q R L R Y S I I W V L I S L L I L
    - T S A R D * D T Q * F G C * Y R C * Y C
      P V P E I K I L N N L G V D I A A N T V
19801 - TAATCTGGGACTACAAAAGAGAAGCCCCAGCACATGTATCTACAATAGGTGTCTGCACAA - 19860
    - * S G T T K E K P Q H M Y L Q * V S A Q
    - N L G L Q K R S P S T C I Y N R C L H N
      IWDYKREAPAHVSTIGVCTM
19861 - TGACTGACATTGCCAAGAAACCTACTGAGAGTGCTTGTTCTCACTTACTGTCTTGTTTG - 19920
    - * L T L P R N L L R V L V L H L L S C L
- D * H C Q E T Y * E C L F F T Y C L V *
      T D I A K K P T E S A C S S L T V L F D
19921 - ATGGTAGAGTGGAAGGACAGGTAGACCTTTTTAGAAACGCCCGTAATGGTGTTTTAATAA - 19980
    -MVEWKDR*TFLETPVMVF**
     W * S G R T G R P F * K R P * W C F N N
     G R V E G Q V D L F R N A R N G V L I T
19981 - CAGAAGGTTCAGTCAAAGGTCTAACACCTTCAAAGGGACCAGCACAAGCTAGCGTCAATG - 20040
    -Q K V Q S K V * H L Q R D Q H K L A S M
      ·- EGSVKGLTPSKGPAQASVNG
20041 - GAGTCACATTAATTGGAGAATCAGTAAAAACACAGTTTAACTACTTTAAGAAAGTAGACG - 20100
    -ESH * LENQ * KHSLTTLRK * T
    - S H I N W R I S K N T V * L L * E S R R
     V T L I G E S V K T Q F N Y F K K V D G
20101 - GCATTATTCAACAGTTGCCTGAAACCTACTTTACTCAGAGCAGAGACTTAGAGGATTTTA - 20160
    -ALFNSCLKPTLLRAET * RIL
    - H Y S T V A * N L L Y S E Q R L R G F *
      I I Q Q L P E T Y F T Q S R D L E D F K
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20161 - AGCCCAGATCACAAATGGAAACTGACTTTCTCGAGCTCGCTATGGATGAATTCATACAGC - 20220
    -SPDHKWKLTFSSSLWMNSYS
    - A Q I T N G N * L S R A R Y G * I H T A
      PRSQMETDFLELAMDEFIQR
20221 - GATATAAGCTCGAGGGCTATGCCTTCGAACACATCGTTTATGGAGATTTCAGTCATGGAC - 20280
    \hbox{--D I S S R A M P S N T S F M E I S V M D}
    - I * A R G L C L R T H R L W R F Q S W T
       Y K L E G Y A F E H I V Y G D F S H G Q
20281 - AACTTGGCGGTCTTCATTTAATGATAGGCTTAGCCAAGCGCTCACAAGATTCACCACTTA - 20340
    -N L A V F I * * * A * P S A H K I H H L
    - TWRSSFNDRLSQALTRFTT*
      L G G L H L M I G L A K R S Q D S P L K
20341 - AATTAGAGGATTTTATCCCTATGGACAGCACAGTGAAAAATTACTTCATAACAGATGCGC - 20400
    -N * R I L S L W T A Q * K I T S * Q M R
    - I R G F Y P Y G Q H S E K L L H N R C A
      L E D F I P M D S T V K N Y F I T D A Q
20401 - AAACAGGTTCATCAAAATGTGTGTGTTCTTGTGATCTTTTACTTGATGACTTTGTCG - 20460
    -KQVHQNVCVL*LIFYLMTLS
    - N R F I K M C V F C D * S F T * * L C R
       T G S S K C V C S V I D L L L D D F V E
20461 - AGATAATAAAGTCACAAGATTTGTCAGTGATTTCAAAAGTGGTCAAGGTTACAATTGACT - 20520
    -R * * S H K I C Q * F Q K W S R L Q L T
    - D N K V T R F V S D F K S G Q G Y N * L
      I I K S Q D L S V I S K V V K V T I D Y
20521 - ATGCTGAAATTTCATTCATGCTTTGGTGTAAGGATGGACATGTTGAAACCTTCTACCCAA - 20580
    - M L K F H S C F G V R M D M L K P S T Q
    - C * N F I H A L V * G W T C * N L L P K
      A E I S F M L W C K D G H V E T F Y P K
20581 - AACTACAAGCAAGTCAAGCGTGGCAACCAGGTGTTGCGATGCCTAACTTGTACAAGATGC - 20640
    -NYKQVKRGNQVLRCLTCTRC
    - T T S K S S V A T R C C D A * L V Q D A
      L Q A S Q A W Q P G V A M P N L Y K M Q
20641 - AAAGAATGCTTCTTGAAAAGTGTGACCTTCAGAATTATGGTGAAAATGCTGTTATACCAA - 20700
    -KECFLKSVTFRIMVKMLLYQ
    - K N A S * K V * P S E L W * K C C Y T K
      R M L L E K C D L Q N Y G E N A V I P K
20701 - AAGGAATAATGATGAATGTCGCAAAGTATACTCAACTGTGTCAATACTTAAATACACTTA - 20760
    -KE * * * M S Q S I L N C V N T * I H L
     RNNDECRKVYSTVSILKYTY
      G I M M N V A K Y T Q L C Q Y L N T L T
20761 - CTTTAGCTGTACCCTACAACATGAGAGTTATTCACTTTGGTGCTGGCTCTGATAAAGGAG - 20820
    -L * L Y P T T * E L F T L V L A L I K E
     FSCTLQHESYSLWCWL**RS
     LAVPYNMRVIHFGAGSDKGV
20821 - TTGCACCAGGTACAGCTGTGCTCAGACAATGGTTGCCAACTGGCACACTACTTGTCGATT - 20880
    -LHQVQLCSDNGCQLAHYLSI
     C T R Y S C A Q T M V A N W H T T C R F
     A P G T A V L R Q W L P T G T L L V D S
20881 - CAGATCTTAATGACTTCGTCTCCGACGCAGATTCTACTTTAATTGGAGACTGTGCAACAG - 20940
    -QILMTSSPTQILL * LETVQQ
     R S * * L R L R R R F Y F N W R L C N S
    - D L N D F V S D A D S T L I G D C A T V
-YIRLINGTLLLAICMTLGPN
     T Y G * * M G P Y Y * R Y V * P * D Q T
      H T A N K W D L I I S D M Y D P R T K H
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21001 - ATGTGACAAAAGAGAATGACTCTAAAGAAGGGTTTTTCACTTATCTGTGTGGATTTATAA - 21060
    - M * Q K R M T L K K G F S L I C V D L *
    - C D K R E * L * R R V F H L S V W I Y K
       V T K E N D S K E G F F T Y L C G F I K
21061 - AGCAAAAACTAGCCCTGGGTGGTTCTATAGCTGTAAAGATAACAGAGCATTCTTGGAATG - 21120
    - S K N * P W V V L * L * R * Q S I L G M
    - A K T S P G W F Y S C K D N R A F L E C
       Q K L A L G G S I A V K I T E H S W N A
21121 - CTGACCTTTACAAGCTTATGGGCCATTTCTCATGGTGGACAGCTTTTGTTACAAATGTAA - 21180
    -LTFTSLWAISHGGQLLLQM*
      * P L Q A Y G P F L M V D S F C Y K C K
      D L Y K L M G H F S W W T A F V T N V N
21181 - ATGCATCATCATCGGAAGCATTTTTAATTGGGGCTAACTATCTTGGCAAGCCGAAGGAAC - 21240
    -MHHHRKHF * LGLTILASRRN
    - CIIIGSIFN W G * L S W Q A E G T
      ASSSEAFLIGANYLGKPKEQ
21241 - AAATTGATGGCTATACCATGCTAACTACATTTTCTGGAGGAACACAAATCCTATCC - 21300
    -KLMAIPCMLTTFSGGTQILS
    - N * W L Y H A C * L H F L E E H K S Y P
       I D G Y T M H A N Y I F W R N T N P I Q
21301 - AGTTGTCTTCCTATTCACTCTTTGACATGAGCAAATTTCCTCTTAAATTAAGAGGAACTG - 21360
    -SCLPIHSLT * ANFLLN * EEL
    - V V F L F T L * H E Q I S S * I K R N C
      L S S Y S L F D M S K F P L K L R G T A
21361 - CTGTAATGTCTCTTAAGGAGAATCAAATCAATGATATGATTTATTCTCTTCTGGAAAAAG - 21420
    -L * C L L R R I K S M I * F I L F W K K
    - C N V S * G E S N Q * Y D L F S S G K R
      V M S L K E N Q I N D M I Y S L L E K G
21421 - GTAGGCTTATCATTAGAGAAAACAACAGAGTTGTGGTTTCAAGTGATATTCTTGTTAACA - 21480
    -VGLSLEKTTELWFQVIFLLT
      * A Y H * R K Q Q S C G F K * Y S C * Q
      R L I I R E N N R V V V S S D I L V N N
21481 - ACTAAACGAACATGTTTATTTTCTTATTTTCTTACTCTCACTAGTGGTAGTGACCTTG - 21540
    -TKRTCLFSYYFLLSLVVTL
     LNEHVYFLIISYSH * W * * P *
      * T N M F I F L L F L T L T S G S D L D
21541 - ACCGGTGCACCACTTTTGATGATGTTCAAGCTCCTAATTACACTCAACATACTTCATCTA - 21600
    -TGAPLLMMFKLLITLNILHL
      PVHHF**CSSS*LHSTYFIY
      R C T T F D D V Q A P N Y T Q H T S S M
- * G G F T I L M K F L D Q T L F I * L R
- E G G L L S * * N F * I R H S L F N S G
      R G V Y Y P D E I F R S D T L Y L T Q D
21661 - ATTTATTCTTCCATTTTATTCTAATGTTACAGGGTTTCATACTATTAATCATACGTTTG - 21720
    -IYFFHFILMLQGFILLIIRL
-FISSILF*CYRVSYY*SYVW
      L F L P F Y S N V T G F H T I N H T F G
21721 - GCAACCCTGTCATACCTTTTAAGGATGGTATTTATTTTGCTGCCACAGAGAAATCAAATG - 21780
    -ATLSYLLRMVFILLPQRNQM
      Q P C H T F * G W Y L F C C H R E I K C
      N P V I P F K D G I Y F A A T E K S N V
21781 - TTGTCCGTGGTTGGGTTTTGGTTCTACCATGAACAACAAGTCACAGTCGGTGATTATTA - 21840
    -LSVVGFLVLP*TTSHSR*LL
      C P W L G F W F Y H E Q Q V T V G D Y Y
      V R G W V F G S T M N N K S Q S V I I I
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21841 - TTAACAATTCTACTAATGTTGTTATACGAGCATGTAACTTTGAATTGTGTGACAACCCTT - 21900
     -LTILLMLLYEHVTLNCVTTL
       21901 - TCTTTGCTGTTTCTAAACCCATGGGTACACAGACACATACTATGATATTCGATAATGCAT - 21960
     -SLLFLNPWVHRHIL*YSIMH
     - L C C F * T H G Y T D T Y Y D I R * C I
- F A V S K P M G T Q T H T M I F D N A F
 21961 - TTAATTGCACTTTCGAGTACATATCTGATGCCTTTTCGCTTGATGTTTCAGAAAAGTCAG - 22020
     -LIALSSTYLMPFRLMFQKSQ
      * L H F R V H I * C L F A * C F R K V R
       N C T F E Y I S D A F S L D V S E K S G
 22021 - GTAATTTTAAACACTTACGAGAGTTTGTGTTTTAAAAATAAAGATGGGTTTCTCTATGTTT - 22080
     -VILNTYESLCLKIKMGFSMF
     - * F * T L T R V C V * K * R W V S L C L
       N F K H L R E F V F K N K D G F L Y V Y
 22081 - ATAAGGGCTATCAACCTATAGATGTAGTTCGTGATCTACCTTCTGGTTTTAACACTTTGA - 22140
     -IRAINL * M * F V I Y L L V L T L *
     - * G L S T Y R C S S * S T F W F * H F E
       K G Y Q P I D V V R D L P S G F N T L K
 22141 - AACCTATTTTTAAGTTGCCTCTTGGTATTAACATTACAAATTTTAGAGCCATTCTTACAG - 22200
     -N L F L S C L L V L T L Q I L E P F L Q
     - T Y F * V A S W Y * H Y K F * S H S Y S
       PIFKLPLGINITNFRAILTA
22201 - CCTTTTCACCTGCTCAAGACATTTGGGGCACGTCAGCTGCAGCCTATTTTGTTGGCTATT - 22260
     -PFHLLKTFGARQLQPILLAI
     - L F T C S R H L G H V S C S L F C W L F
       F S P A Q D I W G T S A A A Y F V G Y L
22261 - TAAAGCCAACTACATTTATGCTCAAGTATGATGAAAATGGTACAATCACAGATGCTGTTG - 22320
     - * S Q L H L C S S M M K M V Q S Q M L L
     - K A N Y I Y A Q V * * K W Y N H R C C *
      K P T T F M L K Y D E N G T I T D A V D
22321 - ATTGTTCTCAAAATCCACTTGCTGAACTCAAATGCTCTGTTAAGAGCTTTGAGATTGACA - 22380
     -I V L K I H L L N S N A L L R A L R L T
      LFSKSTC * TQMLC * EL * D * Q
       C S Q N P L A E L K C S V K S F E I D K
22381 - AAGGAATTTACCAGACCTCTAATTTCAGGGTTGTTCCCTCAGGAGATGTTGTGAGATTCC - 22440
     -KEFTRPLISGLFPQEML*DS
      R N L P D L * F Q G C S L R R C C E I P
       G I Y Q T S N F R V V P S G D V V R F P
22441 - CTAATATTACAAACTTGTGTCCTTTTGGAGAGGTTTTTAATGCTACTAAATTCCCTTCTG - 22500
     -LILQTCVLLERFLMLLNSLL
      * Y Y K L V S F W R G F * C Y * I P F C
       NITNLCPFGEVFNATKFPSV
22501 - TCTATGCATGGGAGAAAAAAATTTCTAATTGTGTTGCTGATTACTCTGTGCTCTACA - 22560
     -SMHGREKKFLIVLLITLCST
      L C M G E K K N F * L C C * L L C A L Q
       YAWERKKISNCVADYSVLYN
22561 - ACTCAACATTTTTTCAACCTTTAAGTGCTATGGCGTTTCTGCCACTAAGTTGAATGATC - 22620
     -T Q H F F Q P L S A M A F L P L S * M I
      L N I F F N L * V L W R F C H * V E * S
       STFFSTFKC-YGVSATKLNDL
22621 - TTTGCTTCTCCAATGTCTATGCAGATTCTTTTGTAGTCAAGGGAGATGATGTAAGACAAA - 22680
     -FASPMSMQILL*SREMM*DK
-LLLQCLCRFFCSQGR*CKTN
       C F S N V Y A D S F V V K G D D V R Q I
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22681 - TAGCGCCAGGACAACTGGTGTTATTGCTGATTATAATTATAATTGCCAGATGATTTCA - 22740
     - * R Q D K L V L L I I I I N C Q M I S
     - S A R T N W C Y C * L * L * I A R * F H
       A P G Q T G V I A D Y N Y K L P D D F M
22741 - TGGGTTGTCTTGCTTGGAATACTAGGAACATTGATGCTACTTCAACTGGTAATTATA - 22800
     \hbox{-} \hbox{W} \hbox{ V} \hbox{ V} \hbox{ S} \hbox{ L} \hbox{ L} \hbox{ G} \hbox{ I} \hbox{ L} \hbox{ G} \hbox{ T} \hbox{ L} \hbox{ M} \hbox{ L} \hbox{ L} \hbox{ Q} \hbox{ L} \hbox{ V} \hbox{ I} \hbox{ I}
     - G L C P C L E Y * E H * C Y F N W * L *
       G C V L A W N T R N I D A T S T G N Y N
-IINIGILD MASLGPLRETYL
     - L * I * V S * T W Q A * A L * E R H I *
       YKYRYLRHGKLRPFERDISN
22861 - ATGTGCCTTTCTCCCCTGATGGCAAACCTTGCACCCCACCTGCTCTTAATTGTTATTGGC - 22920
     -MCLSPLMANLAPHLLLIVIG
     - C A F L P * W Q T L H P T C S * L L L A
       V P F S P D G K P C T P P A L N C Y W P
22921 - CATTAAATGATTATGGTTTTTACACCACTACTGGCATTGGCTACCAACCTTACAGAGTTG - 22980
     - H * M I M V F T P L L A L A T N L T E L
     - I K * L W F L H H Y W H W L P T L Q S C
      LNDYGFYTTTGIGYQPYRVV
22981 - TAGTACTTTCTTTTGAACTTTTAAATGCACCGGCCACGGTTTGTGGACCAAAATTATCCA - 23040
     - * Y F L L N F * M H R P R F V D Q N Y P
     - S T F F * T F K C T G H G L W T K I I H
       V L S F E L L N A P A T V C G P K L S T
23041 - CTGACCTTATTAAGAACCAGTGTGTCAATTTTAATTTTAATGGACTCACTGGTACTGGTG - 23100
     -LTLLRTSVSILILMDSLVLV
      * P Y * E P V C Q F * F * W T H W Y W C
      D L I K N Q C V N F N F N G L T G T G V
23101 - TGTTAACTCCTTCTTCAAAGAGATTTCAACCATTTCAACAATTTGGCCGTGATGTTTCTG - 23160
    -C * L L Q R D F N H F N N L A V M F L
     - V N S F F K E I S T I S T I W P * C F *
      L T P S S K R F Q P F Q Q F G R D V S D
23161 - ATTTCACTGATTCCGTTCGAGATCCTAAAACATCTGAAATATTAGACATTTCACCTTGCT - 23220
     -ISLIPFEILKHLKY*TFHLA
      FH*FRSRS*NI*NIRHFTLL
       FTDSVRDPKTSEILDISPCS
23221 - CTTTTGGGGGTGTAAGTGTAATTACACCTGGAACAATGCTTCATCTGAAGTTGCTGTTC - 23280
    -LLGV * V * L H L E Q M L H L K L L F
      FWGCKCNYTWNKCFI*SCCS
       F G G V S V I T P G T N A S S E V A V L
23281 - TATATCAAGATGTTAACTGCACTGATGTTTCTACAGCAATTCATGCAGATCAACTCACAC - 23340
    - Y I K M L T A L M F L Q Q F M Q I N S H
- I S R C * L H * C F Y S N S C R S T H T
- Y Q D V N C T D V S T A I H A D Q L T P
23341 - CAGCTTGGCGCATATATTCTACTGGAAACAATGTATTCCAGACTCAAGCAGGCTGTCTTA - 23400
    -QLGAYILLETMYSRLKQAVL
-SLAHIFYWKQCIPDSSRLSY
       AWRIYSTGNNVFQTQAGCLI
23401 - TAGGAGCTGAGCATGTCGACACTTCTTATGAGTGCGACATTCCTATTGGAGCTGGCATTT - 23460
     - * E L S M S T L L M S A T F L L E L A F
      R S * A C R H F L * V R H S Y W S W H L
      G A E H V D T S Y E C D I P I G A G I C
23461 - GTGCTAGTTACCATACAGTTTCTTTATTACGTAGTACTAGCCAAAAATCTATTGTGGCTT - 23520
    -V L V T I Q F L Y Y V V L A K N L L W L
      C * L P Y S F F I T * Y * P K I Y C G L
       A S Y H T V S L L R S T S Q K S I V A Y
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23521 - ATACTATGTCTTTAGGTGCTGATAGTTCAATTGCTTACTCTAATAACACCATTGCTATAC - 23580
     -I L C L * V L I V Q L L T L I T P L L Y
      Y Y V F R C * * F N C L L * * H H C Y T
       T M S L G A D S S I A Y S N N T I A I P
23581 - CTACTAACTTTCAATTAGCATTACTACAGAAGTAATGCCTGTTTCTATGGCTAAAACCT - 23640
     -LLTFQLALLQK*CLFLWLKP
      Y * L F N * H Y Y R S N A C F Y G * N L
T N F S I S I T T E V M P V S M A K T S
23641 - CCGTAGATTGTAATATGTACATCTGCGGAGATTCTACTGAATGTGCTAATTTGCTTCTCC - 23700
     -P * I V I C T S A E I L L N V L I C F S
     - R R L * Y V H L R R F Y * M C * F A S P
       V D C N M Y I C G D S T E C A N L L L Q
23701 - AATATGGTAGCTTTTGCACACAACTAAATCGTGCACTCTCAGGTATTGCTGCTGAACAGG - 23760
    -NMVAFAHN*IVHSQVLLLNR
    - I W * L L H T T K S C T L R Y C C * T G
      Y G S F C T Q L N R A L S G I A A E O D
23761 - ATCGCAACACGTGAAGTGTTCGCTCAAGTCAAACAAATGTACAAAACCCCAACTTTGA - 23820
    -I A T H V K C S L K S N K C T K P Q L *
    - S Q H T * S V R S S Q T N V Q N P N F E
      RNTREVFAQVKQMYKTPTLK
23821 - AATATTTTGGTGGTTTTAATTTTTCACAAATATTACCTGACCCTCTAAAGCCAACTAAGA - 23880
    -NILVVLIFHKYYLTL*SQLR
    - I F W W F * F F T N I T * P S K A N * E
       Y F G G F N F S Q I L P D P L K P T K R
23881 - GGTCTTTTATTGAGGACTTGCTCTTTAATAAGGTGACACTCGCTGATGCTGGCTTCATGA - 23940
    -GLLLRTCSLIR*HSLMLAS*
    - V F Y * G L A L * * G D T R * C W L H E
       S F I E D L L F N K V T L A D A G F M K
23941 - AGCAATATGGCGAATGCCTAGGTGATATTAATGCTAGAGATCTCATTTGTGCGCAGAAGT - 24000
    - S N M A N A * V I L M L E I S F V R R S
- A I W R M P R * Y * C * R S H L C A E V
       Q Y G E C L G D I N A R D L I C A Q K F
24001 - TCAATGGACTTACAGTGTTGCCACCTCTGCTCACTGATGATATGATTGCTGCCTACACTG - 24060
    -SMDLQCCHLCSLMI*LLPTL
     Q W T Y S V A T S A H * * Y D C C L H C
      NGLTVLPPLLTDDMIAAYTA
24061 - CTGCTCTAGTTAGTGGTACTGCCACTGCTGGATGGACATTTGGTGCTGCGCGCTGCTCTTC - 24120
    -LL * L V V L P L L D G H L V L A L L F
     C S S * W Y C H C W M D I W C W R C S S
       A L V S G T A T A G W T F G A G A A L Q
24121 - AAATACCTTTTGCTATGCAAATGGCATATAGGTTCAATGGCATTGGAGTTACCCAAAATG - 24180
    -KYLLLCKWHIGSMALELPKM
     NTFCYANGI*VQWHWSYPKC
       I P F A M Q M A Y R F N G I G V T Q N V
24181 - TTCTCTATGAGAACCAAAACCAAATCGCCAACCAATTTAACAAGGCGATTAGTCAAATTC - 24240
    -FSMRTKNKSPTNLTRRLVKF
      S L * E P K T N R Q P I * Q G D * S N S
       LYENQKQIANQFNKAISQIQ
24241 - AAGAATCACTTACAACAACATCAACTGCATTGGGCAAGCTGCAAGACGTTGTTAACCAGA - 24300
    -KNHLQQHQLHWASCKTLLTR
      R I T Y N N I N C I G Q A A R R C * P E
      ESLTTTSTALGKLQDVVNQN
24301 - ATGCTCAAGCATTAAACACTTGTTAAACAACTTAGCTCTAATTTTGGTGCAATTTCAA - 24360
    -MLKH*THLLNNLALILVQFQ
     CSSIKHTC*TT*L*FWCNFK
      A Q A L N T L V K Q L S S N F G A I S S
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24361 - GTGTGCTAAATGATATCCTTTCGCGACTTGATAAAGTCGAGGCGGAGGTACAAATTGACA - 24420
    -VC * M I S F R D L I K S R R Y K L T
    - C A K * Y P F A T * * S R G G G T N * Q
       V L N D I L S R L D K V E A E V Q I D R
24421 - GGTTAATTACAGGCAGACTTCAAAGCCTTCAAACCTATGTAACACAACAACTAATCAGGG - 24480
    -G * L Q A D F K A F K P M * H N N * S G
    - V N Y R Q T S K P S N L C N T T T N Q G
      LITGRLQSLQTYVTQQLIRA
24481 - CTGCTGAAATCAGGGCTTCTGCTAATCTTGCTGCTACTAAAATGTCTGAGTGTTCTTG - 24540
    -L L K S G L L L L L L L K C L S V F L
    - C * N Q G F C * S C C Y * N V * V C S W
       A E I R A S A N L A A T K M S E C V L G
24541 - GACAATCAAAAAGAGTTGACTTTTGTGGAAAGGGCTACCACCTTATGTCCTTCCCACAAG - 24600
    -DNQKELTFVERATTLCPSHK
    - TIKKS * LLWKGLPPYVLPTS
       Q S K R V D F C G K G Y H L M S F P O A
24601 - CAGCCCGCATGGTGTTGTCTTCCTACATGTCACGTATGTGCCATCCCAGGAGAGGAACT - 24660
    -QPRMVLSSYMSRMCHPRRGT
    - S P A W C C L P T C H V C A I P G E E L
       A P H G V V F L H V T Y V P S Q E R N F
24661 - TCACCACAGCGCCAGCAATTTGTCATGAAGGCAAAGCATACTTCCCTCGTGAAGGTGTTT - 24720
    -SPQRQQFVMKAKHTSLVKVF
    - H H S A S N L S * R Q S I L P S * R C F
       T T A P A I C H E G K A Y F P R E G V F
24721 - TTGTGTTTAATGGCACTTCTTGGTTTATTACACAGAGGGAACTTCTTTTCTCCACAAATAA - 24780
    -LCLMALLGLLHRGTSFLHK*
    - C V * W H F L V Y Y T E E L L F S T N N
     V F N G T S W F I T Q R N F F S P Q I I
24781 - TTACTACAGACAATACATTTGTCTCAGGAAATTGTGATGTCGTTATTGGCATCATTAACA - 24840
    -LLQTIHLSQEIVMSLLASLT
     YYRQYICLRKL*CRYWHH*Q
       T T D N T F V S G N C D V V I G I I N N
24841 - ACACAGTTTATGATCCTCTGCAACCTGAGCTTGACTCATTCAAAGAAGAGCTGGACAAGT - 24900
    -T Q F M I L C N L S L T H S K K S W T S
     HSL*SSAT*A*LIQRRAGQV
      TVYDPLQPELDSFKEELDKY
24901 - ACTTCAAAAATCATACATCACCAGATGTTGATCTTGGCGACATTTCAGGCATTAACGCTT - 24960
    -TSKIIHHQMLILATFQALTL
     L Q K S Y I T R C * S W R H F R H * R F
      F K N H T S P D V D L G D I S G I N A S
24961 - CTGTCGTCAACATTCAAAAAGAAATTGACCGCCTCAATGAGGTCGCTAAAAATTTAAATG - 25020
    -LSSTFKKKLTASMRSLKI*M
     C R Q H S K R N * P P Q * G R * K F K *
      V V N I Q K E I D R L N E V A K N L N E
25021 - AATCACTCATTGACCTTCAAGAATTGGGAAAATATGAGCAATATATTAAATGGCCTTGGT - 25080
    -NHSLTFKNWENMSNILNGLG
      I T H * P S R I G K I * A I Y * M A L V
      SLIDLQELGKYEQYIKWPWY
25081 - ATGTTTGGCTCGGCTTCATTGCTGGACTAATTGCCATCGTCATGGTTACAATCTTGCTTT - 25140
    - M F G S A S L L D * L P S S W L Q S C F
      C L A R L H C W T N C H R H G Y N L A L
      V W L G F I A G L I A I V M V T I L L C
25141 - GTTGCATGACTAGTTGTTGCAGTTGCCTCAAGGGTGCATGCTCTTGTGGTTCTTGCTGCA - 25200
    -VA * L V V A V A S R V H A L V V L A A
      L H D * L L Q L P Q G C M L L W F L L Q
      C M T S C C S C L K G A C S C G S C C K
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25201 - AGTTTGATGAGGATGACTCTGAGCCAGTTCTCAAGGGTGTCAAATTACATTACACATAAA - 25260
    -SLMRMTLSQFSRVSNYITHK
        * * G * L * A S S Q G C Q I T L H I N
       F D E D D S E P V L K G V K L H Y T * T
25261 - CGAACTTATGGATTTGTTTATGAGATTTTTTACTCTTGGATCAATTACTGCACAGCCAGT - 25320
    -RTYGFVYEIFYSWINYCTAS
    - E L M D L F M R F F T L G S I T A Q P V
      NLWICL*DFLLLDQLLHSQ*
25321 - AAAAATTGACAATGCTTCTCCTGCAAGTACTGTTCATGCTACAGCAACGATACCGCTACA - 25380
    - K N * Q C F S C K Y C S C Y S N D T A T
    - K I D N A S P A S T V H A T A T I P L Q
      K L T M L L L Q V L F M L Q Q R Y R Y K
25381 - AGCCTCACTCCCTTTCGGATGCCTTGTTATTGGCGTTGCATTTCTTGCTGTTTTTCAGAG - 25440
    -S L T P F R M A C Y W R C I S C C F S E
    - A S L P F G W L V I G V A F L A V F Q S
      P H S L S D G L L L A L H F L L F F R A
25441 - CGCTACCAAAATAATTGCGCTCAATAAAAGATGGCAGCTAGCCCTTTATAAGGGCTTCCA - 25500
    -RYQNNCAQ * KMAASPL * GLP
    - A T K I I A L N K R W Q L A L Y K G F O
      L P K * L R S I K D G S * P F I R A S S
25501 - GTTCATTTGCAATTTACTGCTGCTATTTGTTACCATCTATTCACATCTTTTGCTTGTCGC - 25560
    -V H L Q F T A A I C Y H L F T S F A C R
    - FICNLLLFVTIYSHLLLVA
      S F A I Y C C Y L L P S I H I F C L S L
25561 - TGCAGGTAAGGAGGCGCAATTTTTGTACCTCTATGCCTTGATATATTTTCTACAATGCAT - 25620
    -CR * GGAIFVPLCLDIFSTMH
    - A G K E A Q F L Y L Y A L I Y F L Q C I
      Q V R R R N F C T S M P * Y I F Y N A S
25621 - CAACGCATGTAGAATTATTATGAGATGTTGGCTTTGTTGGAAGTGCAAATCCAAGAACCC - 25680
    -QRM * NYYEMLALLEVQIQEP
     N A C R I I M R C W L C W K C K S K N P
     THVELL*DVGFVGSANPRTH
-ITL * CQLLCLLAHT * L * LLY
     LLYDANYFVCWHTHNYDYCI
      Y F M M P T T L F A G T H I T M T T V Y
25741 - ACCATATAACAGTGTCACAGATACAATTGTCGTTACTGAAGGTGACGGCATTTCAACACC - 25800
    -TI*QCHRYNCRY*R*RHFNT
     P Y N S V T D T I V V T E G D G I S T P
      H I T V S Q I Q L S L L K V T A F Q H Q
25801 - AAAACTCAAAGAAGACTACCAAATTGGTGGTTATTCTGAGGATAGGCACTCAGGTGTTAA - 25860
    -KTQRRLPNWWLF*G*ALRC*
     K L K E D Y Q I G G Y S E D R H S G V K
      N S K K T T K L V V I L R I G T O V L K
25861 - AGACTATGTCGTTGTACATGGCTATTTCACCGAAGTTTACTACCAGCTTGAGTCTACACA - 25920
    -RLCRCTWLFHRSLLPA*VYT
     D Y V V H G Y F T E V Y Y Q L E S T Q
      TMSLYMAISPKFTTSLSLHK
25921 - AATTACTACAGACACTGGTATTGAAAATGCTACATTCTTCATCTTTAACAAGCTTGTTAA - 25980
    -NYYRHWY*KCYILHL*´QAC*
       T T D T G I E N A T F F I F N K L V K
      LLQTLVLKMLHSSSLTSLLK
25981 - AGACCCACCGAATGTGCAAATACACACAATCGACGGCTCTTCAGGAGTTGCTAATCCAGC - 26040
    -RPTECANTHNRRLFRSC * SS
     D P P N V Q I H T I D G S S G V A N P A
      T H R M C K Y T Q S T A L Q E L L I Q Q
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26041 - AATGGATCCAATTTATGATGAGCCGACGACTACTAGCGTGCCTTTGTAAGCACAAGA - 26100
    -NGSNL * * ADDDY * RAFVSTR
    - M D P I Y D E P T T T T S V P L * A Q E
       WIQFMMSRRLLACLCKHKK
26101 - AAGTGAGTACGAACTTATGTACTCATTCGTTTCGGAAGAACAGGTACGTTAATAGTTAA - 26160
    -K * V R T Y V L I R F G R N R Y V N S *
    - SEYELMYSFVSEETGTLIVN
      V S T N L C T H S F R K K Q V R * * L I
26161 - TAGCGTACTTCTTTCTTGCTTTCGTGGTATTCTTGCTAGTCACACTAGCCATCCTTAC - 26220
    - * R T S F S C F R G I L A S H T S H P Y
    - S V L L F L A F V V F L L V T L A I L T
       A Y F F F L L S W Y S C * S H * P S L L
26221 - TGCGCTTCGATTGTGTGCGTACTGCTGCAATATTGTTAACGTGAGTTTAGTAAAACCAAC - 26280
    -CASIVCVLLQYC*REFSKTN
    - A L R L C A Y C C N I V N V S L V K P T
       R F D C V R T A A I L L T * V * * N O R
26281 - GGTTTACGTCTACTCGCGTGTTAAAAATCTGAACTCTTCTGAAGGAGTTCCTGATCTTCT - 26340
    -GLRLLAC * KSELF * RSS * SS
    - V Y V Y S R V K N L N S S E G V P D L L
      FTSTRVLKI*TLLKEFLIFW
26341 - GGTCTAAACGAACTAACTATTATTATTATTCTGTTTGGAACTTTAACATTGCTTATCATG - 26400
    -G L N E L T I I I L F G T L T L L I M
      V * T N * L L L F C L E L * H C L S W
       S K R T N Y Y Y Y S V W N F N I A Y H G
26401 - GCAGACAACGGTACTATTACCGTTGAGGAGCTTAAACAACTCCTGGAACAATGGAACCTA - 26460
    - A D N G T I T V E E L K Q L L E Q W N L
     Q T T V L L P L R S L N N S W N N G T *
      R Q R Y Y Y R * G A * T T P G T M E P S
26461 - GTAATAGGTTTCCTATTCCTAGCCTGGATTATGTTACTACAATTTGCCTATTCTAATCGG - 26520
    -VIGFLFLAWIMLLQFAYSNR
      * * V S Y S * P G L C Y Y N L P I L I G
      N R F P I P S L D Y V T T I C L F * S E
26521 - AACAGGTTTTTGTACATAATAAAGCTTGTTTTCCTCTGGCTCTTGTGGCCAGTAACACTT - 26580
    -NRFLYIIKLVFLWLLWPVTL
     T G F C T * * S L F S S G S C G Q * H L
      Q V F V H N K A C F P L A L V A S N T C
26581 - GCTTGTTTTGTGCTTGCTGTTGTCTACAGAATTAATTGGGTGACTGGCGGGATTGCGATT - 26640
    - A C F V L A V V Y R I N W V T G G I A I
- L V L C L L S T E L I G * L A G L R L
      L F C A C C C L Q N * L G D W R D C D C
- A M A C I V G L M W L S Y F V A S F R L
      Q W L V L * A * C G L A T S L L P S G C
      NGLYCRLDVA*LLRCFLQAV
26701 - TTTGCTCGTACCCGCTCAATGTGGTCATTCAACCCAGAAACAACATTCTTCTCAATGTG - 26760
    -FARTRSMWSFNPETNILLNV
      LLVPAQCGHSTQKQTFFSMC
      C S Y P L N V V I Q P R N K H S S Q C A
26761 - CCTCTCCGGGGGACAATTGTGACCAGACCGCTCATGGAAAGTGAACTTGTCATTGGTGCT - 26820
    - P L R G T I V T R P L M E S E L V I G A
     L S G G Q L * P D R S W K V N L S L V L
     S P G D N C D Q T A H G K * T C H W C C
26821 - GTGATCATTCGTGGTCACTTGCGAATGGCCGGACACTCCCTAGGGCGCTGTGACATTAAG - 26880
    -VIIRGHLRMAGHSLGRCDIK
       S F V V T C E W P D T P * G A V T L R
      D H S W S L A N G R T L P R A L * H * G
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26881 - GACCTGCCAAAGAGATCACTGTGGCTACATCACGAACGCTTTCTTATTACAAATTAGGA - 26940
    -D L P K E I T V A T S R T L S Y Y K L G
      TCQKRSLWLHHERFLITN*E
       PAKRDHCGYITNAFLLQIRS
26941 - GCGTCGCAGCGTGTAGGCACTGATTCAGGTTTTGCTGCATACAACCGCTACCGTATTGGA - 27000
    \hbox{-} \hbox{A} \hbox{ S} \hbox{ Q} \hbox{ R} \hbox{ V} \hbox{ G} \hbox{ T} \hbox{ D} \hbox{ S} \hbox{ G} \hbox{ F} \hbox{ A} \hbox{ A} \hbox{ Y} \hbox{ N} \hbox{ R} \hbox{ Y} \hbox{ R} \hbox{ I} \hbox{ G}
    - R R S V * A L I Q V L L H T T A T V L E
      V A A C R H * F R F C C I Q P L P Y W K
27001 - AACTATAAATTAAATACAGACCACGCCGGTAGCAACGACAATATTGCTTTGCTAGTACAG - 27060
    -NYKLNTDHAGSNDNIALLVQ
    - T I N * I Q T T P V A T T I L L C * Y S
       L * I K Y R P R R * Q R Q Y C F A S T V
27061 - TAAGTGACAACAGATGTTTCATCTTGTTGACTTCCAGGTTACAATAGCAGAGATATTGAT - 27120
    - * V T T D V S S C * L P G Y N S R D I D
    - K * Q Q M F H L V D F Q V T I A E I L I
       S D N R C F I L L T S R L Q * Q R Y * L
27121 - TATCATTATGAGGACTTTCAGGATTGCTATTTGGAATCTTGACGTTATAATAAGTTCAAT - 27180
    -YHYEDFQDCYLES*RYNKFN
    - I I M R T F R I A I W N L D V I I S S I
       SL * GL S G L L F G I L T L * * V Q *
27181 - AGTGAGACAATTATTTAAGCCTCTAACTAAGAAGAATTATTCGGAGTTAGATGATGAAGA - 27240
    -SETII * ASN * EELFGVR * * R
    - V R Q L F K P L T K K N Y S E L D D E E
       * D N Y L S L * L R R I I R S * M M K N
27241 - ACCTATGGAGTTAGATTATCCATAAAACGAACATGAAAATTATTCTCTTCCTGACATTGA - 27300
    -TYGVRLSIKRT*KLFSS*H*
    - PMELDYP * NEHENYSLPDID
      LWS * IIHKTNMKIILFLTLI
27301 - TTGTATTTACATCTTGCGAGCTATATCACTATCAGGAGTGTGTTAGAGGTACGACTGTAC - 27360
    -LYLHLASYITIRSVLEVRLY
     CIYILRAISLSGVC * RYDCT
       V F T S C E L Y H Y Q E C V R G T T V L
27361 - TACTAAAAGAACCTTGCCCATCAGGAACATACGAGGGCAATTCACCATTTCACCCTCTTG - 27420
    -Y * K N L A H Q E H T R A I H H F T L L
      T K R T L P I R N I R G Q F T I S P S C
      L K E P C P S G T Y E G N S P F H P L A
27421 - CTGACAATAAATTTGCACTAACTTGCACACACACACTTTGCTTTTGCTTGTGCTGACG - 27480
    -LTINLH * LALAHTLLL VLT
      * Q * I C T N L H * H T L C F C L C * R
       D N K F A L T C T S T H F A F A C A D G
27481 - GTACTCGACATACCTATCAGCTGCGTGCAAGATCAGTTTCACCAAAACTTTTCATCAGAC - 27540
    -V L D I P I S C V Q D Q F H Q N F S S D
      Y S T Y L S A A C K I S F T K T F H Q T
      TRHTYQLRARSVSPKLFIRO
27541 - AAGAGGAGGTTCAACAAGAGCTCTACTCGCCACTTTTTCTCATTGTTGCTGCTCTAGTAT - 27600
    -KRRFNKSSTRHFFSLLL * Y
      R G G S T R A L L A T F S H C C C S S I
      E E V Q Q E L Y S P L F L I V A A L V F
-F * Y F A S P L R E R Q N E * A H F N *
      FNTLLHH*EKDRMNELTLID
      LILCFTIKRKTE * MSSL * LT
27661 - CTTCTATTTGTGCTTTTTAGCCTTTCTGCTATTCCTTGTTTTAATAATGCTTATTATATT - 27720
    -LLFVLFSLSAIPCFNNAYYI
            C F L A F L L F L V L I M L I I F
       SICAF * PFCYSLF * * CLLYF
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27721 - TTGGTTTTCACTCGAAATCCAGGATCTAGAAGAACCTTGTACCAAAGTCTAAACGAACAT - 27780
    -L V F T R N P G S R R T L Y Q S L N E H
    - W F S L E I Q D L E E P C T K V * T N M
      GFHSKSRI*KNLVPKSKRT*
27781 - GAAACTTCTCATTGTTTTGACTTGTATTCTCTATGCAGTTGCATATGCACTGTAGTACA - 27840
    -ETSHCFDLYFSMQLHMHCST
    - K L L I V L T C I S L C S C I C T V V Q
      N F S L F * L V F L Y A V A Y A L * Y S
27841 - GCGCTGTGCATCTAATAAACCTCATGTGCTTGAAGATCCTTGTAAGGTACAACACTAGGG - 27900
    - A L C I * * T S C A * R S L * G T T L G
    - R C A S N K P H V L E D P C K V Q H * G
      AVHLINLMCLKILVRYNTRG
27901 - GTAATACTTATAGCACTGCTTGGCTTTGTGCTCTAGGAAAGGTTTTACCTTTTCATAGAT - 27960
    -VILIALLGFVL*ERFYLFID
    - * Y L * H C L A L C S R K G F T F S * M
      N T Y S T A W L C A L G K V L P F H R W
27961 - GGCACACTATGGTTCAAACATGCACACCTAATGTTACTATCAACTGTCAAGATCCAGCTG - 28020
    -GTLWFKHAHLMLLSTVKIOL
    - A H Y G S N M H T * C Y Y Q L S R S S W
      H T M V Q T C T P N V T I N C O D P A G
28021 - GTGGTGCGCTTATAGCTAGGTGTTGGTACCTTCATGAAGGTCACCAAACTGCTGCATTTA - 28080
    -VVRL * LGVGTFMKVTKLLHL
     W C A Y S * V L V P S * R S P N C C I *
      G A L I A R C W Y L H E G H Q T A A F R
28081 - GAGACGTACTTGTTGTTTTAAATAAACGAACAAATTAAAATGTCTGATAATGGACCCCAA - 28140
    -ETYLLF * INEQIKM S D N G P Q
     RRTCCFK*TNKLKCLIMDPN
     D V L V V L N K R T N * N V * * W T P I
28141 - TCAAACCAACGTAGTGCCCCCCGCATTACATTTGGTGGACCCACAGATTCAACTGACAAT - 28200
    -SN Q R S A P R I T F G G P T D S T D N
     Q T N V V P P A L H L V D P Q I Q L T I
     KPT * CPPHYIWWTHRFN * Q *
28201 - AACCAGAATGGAGGACGCAATGGGGCCAAGGCCCGACCCCAAGGTTTACCC - 28260
    -NQNGGRNGARPKQRRPQGLP
     PEWRTQWGKAKTAPTPRFTO
28261 - AATAATACTGCGTCTTGGTTCACAGCTCTCACTCAGCATGGCAAGGAGGAACTTAGATTC - 28320
    -NNTASWFTALTQHGKEELRF
-IILRLGSQLSLSMARRNLDS
      * Y C V L V H S S H S A W Q G G T * I P
28321 - CCTCGAGGCCAGGGCGTTCCAATCAACACCAATAGTGGTCCAGATGACCAAATTGGCTAC - 28380
    -PRGQGVPINTNSGPDDQIGY
     L E A R A F Q S T P I V V Q M T K L A T
      S R P G R S N Q H Q * W S R * P N W L L
28381 - TACCGAAGAGCTACCCGACGAGTTCGTGGTGGTGACGGCAAAATGAAAGAGCTCAGCCCC - 28440
    -Y R R A T R R V R G G D G K M K E L S P
     TEELPDEFVVVTAK*KSSAP
     PKSYPTSSWW*RQNERAQPQ
28441 - AGATGGTACTTCTATTACCTAGGAACTGGCCCAGAAGCTTCACTTCCCTACGGCGCTAAC - 28500
    -RWYFYYLGTGPEASLPYGAN
     D G T S I T * E L A Q K L H F P T A L T
     M V L L P R N W P R S F T S L R R * Q
28501 - AAAGAAGGCATCGTATGGGTTGCAACTGAGGGGGGCCTTGAATACACCCAAAGACCACATT - 28560
    -KEGIVWVATEGALNTPKDHI
     K K A S Y G L Q L R E P * I H P K T T L
      RRHRMGCN*GSLEYTQRPHW
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28561 - GGCACCCGCAATCCTAATAACAATGCTGCCACCGTGCTACAACTTCCTCAAGGAACAACA - 28620
     -GTRNPNNNAATVLQLPQGTT
      APAILITMLPPCYNFLKEQH
       HPQS**QCCHRATTSSRNNI
28621 - TTGCCAAAAGGCTTCTACGCAGAGGGAAGCAGAGGCGGCAGTCAAGCCTCTTCTCGCTCC - 28680
    - L P K G F Y A E G S R G G S Q A S S R S
    - C Q K A S T Q R E A E A A V K P L L A P
      A K R L L R R G K Q R R Q S S L F S L L
28681 - TCATCACGTAGTCGCGGTAATTCAAGAAATTCAACTCCTGGCAGCAGTAGGGGAAATTCT - 28740
    -SSRSRGNSRNSTPGSSRGNS
    - H H V V A V I Q E I Q L L A A V G E I L
       I T * S R * F K K F N S W Q Q * G K F S
28741 - CCTGCTCGAATGGCTAGCGGAGGTGGTGAAACTGCCCTCGCGCTATTGCTGCTAGACAGA - 28800
    -PARMASGGGETALALLLDR
     L L E W L A E V V K L P S R Y C C * T D
       C S N G * R R W * N C P R A I A A R Q I
28801 - TTGAACCAGCTTGAGAGCAAAGTTTCTGGTAAAGGCCAACAACAACAAGGCCAAACTGTC - 28860
    - L N Q L E S K V S G K G Q Q Q G Q T V
      * T S L R A K F L V K A N N N K A K L S
      E P A * E Q S F W * R P T T T R P N C H
28861 - ACTAAGAAATCTGCTGCTGAGGCATCTAAAAAGCCTCGCCAAAAACGTACTGCCACAAAA - 28920
    -TKKSAAEASKKPRQKRTATK
      LRNLLRHLKSLAKNVLPQN
       * E I C C * G I * K A S P K T Y C H K T
28921 - CAGTACAACGTCACTCAAGCATTTGGGAGACGTGGTCCAGAACAACCCAAGGAAATTTC - 28980
    -QYNVTQAFGRRGPEQTQGNF
      S T T S L K H L G D V V Q N K P K E I S
       V Q R H S S I W E T W S R T N P R K F R
28981 - GGGGACCAAGACCTAATCAGACAAGGAACTGATTACAAACATTGGCCGCAAATTGCACAA - 29040
    -G D Q D L I R Q G T D Y K H W P Q I A Q
      GTKT*SDKELITNIGRKLHN
       G P R P N Q T R N * L Q T L A A N C T I
29041 - TTTGCTCCAAGTGCCTCTGCATTCTTTGGAATGTCACGCATTGGCATGGAAGTCACACCT - 29100
    -FAPSASAFFGMSRIGMEVTP
      L L Q V P L H S L E C H A L A W K S H L
      C S K C L C I L W N V T H W H G S H T F
29101 - TCGGGAACATGGCTGACTTATCATGGAGCCATTAAATTGGATGACAAAGATCCACAATTC - 29160
    -SGTWLTYHGAIKLDDKDPQF
      R E H G * L I M E P L N W M T K I H N S
      G N M A D L S W S H * I G * Q R S T I Q
29161 - AAAGACAACGTCATACTGCTGAACAAGCACATTGACGCATACAAAACATTCCCACCAACA - 29220
    -K D N V I L L N K H I D A Y K T F P P T
      KTTSYC * TSTLTHTKHSHQQ
      R Q R H T A E Q A H * R I Q N I P T N R
29221 - GAGCCTAAAAAGGACAAAAAGAAAAGACTGATGAAGCTCAGCCTTTGCCGCAGAGACAA - 29280
    -EPKKDKKKTDEAQPLPQRQ
      S L K R T K R K R L M K L S L C R R D K
      A * K G Q K E K D * * S S A F A A E T K
29281 - AAGAAGCAGCCCACTGTGACTCTTCTTCCTGCGGCTGACATGGATGATTTCTCCAGACAA - 29340
    -KKQPTVTLLPAADMDDFSRO
     E A A H C D S S S C G * H G * F L Q T T
29341 - CTTCAAAATTCCATGAGTGGAGCTTCTGCTGATTCAACTCAGGCATAAACACTCATGATG - 29400
    -LQNSMSGASADSTQA*TLMM
     FKIP * VELLIQLRHKHS * *
      SKFHEWSFC*FNSGINTHDD
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29401 - ACCACACAGGCAGATGGGCTATGTAAACGTTTTCGCAATTCCGTTTACGATACATAGTC - 29460
    -TTQGRWAM*TFSQFRLRYIV
    - P H K A D G L C K R F R N S V Y D T * S - H T R Q M G Y V N V F A I P F T I H S L
29461 - TACTCTTGTGCAGAATGAATTCTCGTAACTAAACAGCACAAGTAGGTTTAGTTAACTTTA - 29520
    -Y S C A E * I L V T K Q H K * V * L T L
    - T L V Q N E F S * L N S T S R F S * L *
      L L C R M N S R N * T A Q V G L V N F N
29521 - ATCTCACATAGCAATCTTTAATCAATGTGTAACATTAGGGAGGACTTGAAAGAGCCACCA - 29580
    -ISHSNL * SMCNIREDLKEPP
    - S H I A I F N Q C V T L G R T * K S H H
      LT * Q S L I N V * H * G G L E R A T T
29581 - CATTTCATCGAGGCCACGCGGAGTACGATCGAGGGTACAGTGAATAATGCTAGGGAGAG - 29640
    - H F H R G H A E Y D R G Y S E * C * G E
    - I F I E A T R S T I E G T V N N A R E S
     FSSRPRGVRSRVQ*IMLGRA
29641 - CTGCCTATATGGAAGAGCCCTAATGTGTAAAATTAATTTTAGTAGTGCTATCCCCATGTG - 29700
    -LPIWKSPNV * N * F * * C Y P H V
    - CLYGRALMCKINFSSAIPM*
     A Y M E E P * C V K L I L V V L S P C D
-I L I A S * E N D K K K K X
    - F * * L L R R M T K K K X
    - FNSFLGE * QKKKKX
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FIG. 11 Con't

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1 - TTTTTTTTTTTTTTTTTCTCCTAAGAAGCTATTAAAATCACATGGGGATAGCACTA - 60
   -FFFFFVILLRSY*NHMGIAL
     FFFFLSFS * EAIKITWG * HY
     F F F F C H S P K K L L K S H G D S T T
 61 - CTAAAATTAATTTTACACATTAGGGCTCTTCCATATAGGCAGCTCTCCCTAGCATTATTC - 120
   -LKLILHIRALPYRQLSLALF
     * N * F Y T L G L F H I G S S P * H Y S
     K I N F T H * G S S I * A A L P S I I H
121 - ACTGTACCCTCGATCGTACTCCGCGTGGCCTCGATGAAAATGTGGTGGCTCTTTCAAGTC - 180
   -T V P S I V L R V A S M K M W W L F Q V
   - L Y P R S Y S A W P R * K C G G S F K S
     C T L D R T P R G L D E N V V A L S S P
181 - CTCCCTAATGTTACACATTGATTAAAGATTGCTATGTGAGATTAAAGTTAACTAAACCTA - 240
   -LPNVTH * LKIAM * D * S * LN L
   - S L M L H I D * R L L C E I K V N * T Y
     P * C Y T L I K D C Y V R L K L T K P T
241 - CTTGTGCTGTTTAGTTACGAGAATTCATTCTGCACAAGAGTAGACTATGTATCGTAAACG - 300
   -LVLFSYENSFCTRVDYVS*T
    L C C L V T R I H S A O E * T M Y R K R
     CAV*LREFILHKSRLCIVNG
301 - GAATTGCGAAAACGTTTACATAGCCCATCTGCCTTGTGTGGTCATCATGAGTGTTTATGC - 360
   -ELRKRLHSPSALCGHHECLC
   - N C E N V Y I A H L P C V V I M S V Y A
     I A K T F T * P I C L V W S S * V F M P
361 - CTGAGTTGAATCAGCAGAAGCTCCACTCATGGAATTTTGAAGTTGTCTGGAGAAATCATC - 420
   -LS * ISRSSTHGILKLSGEII
    * V E S A E A P L M E F * S C L E K S S
    ELNQQKLHSWNFEVVWRNHP
421 - CATGTCAGCCGCAGGAAGAAGAGTCACAGTGGGCTGCTTCTTTTGTCTCTGCGGCAAAGG - 480
   -HVSRRKKSHSGLLLLSLRQR
   M S A A G R R V T V G C F F C L C G K G
     CQPQEEESQWAASFVSAAKA
481 - CTGAGCTTCATCAGTCTTTTTCTTTTTGTCCTTTTTAGGCTCTGTTGGTGGGAATGTTTT - 540
   -LSFISLFLFVLFRLCWWECF
      A S S V F F F L S F L G S V G G N V L
     E L H Q S F S F C P F * A L L V G M F C
541 - GTATGCGTCAATGTGCTTGTTCAGCAGTATGACGTTGTCTTTGAATTGTGGATCTTTGTC - 600
   -VCVNVLVQQYDVVFELWIFV
    Y A S M C L F S S M T L S L N C G S L S
     M R Q C A C S A V * R C L * I V D L C H
601 - ATCCAATTTAATGGCTCCATGATAAGTCAGCCATGTTCCCGAAGGTGTGACTTCCATGCC - 660
   -I Q F N G S M I S Q P C S R R C D F H A
    S N L M A P * * V S H V P E G V T S M P
     PI * W L H D K S A M F P K V * L P C Q
661 - AATGCGTGACATTCCAAAGAATGCAGAGGCACTTGGAGCAAATTGTGCAATTTGCGGCCA - 720
  -NA*HSKECRGTWSKLCNLRP
    M R D I P K N A E A L G A N C A I C G Q
     C V T F Q R M Q R H L E Q I V Q F A A N
721 - ATGTTTGTAATCAGTTCCTTGTCTGATTAGGTCTTGGTCCCCGAAATTTCCTTGGGTTTG - 780
  -MFVISSLSD*VLVPEISLGL
    C L * S V P C L I R S W S P K F P W V C
     V C N Q F L V * L G L G P R N F L G F V
781 - TTCTGGACCACGTCTCCCAAATGCTTGAGTGACGTTGTACTGTTTTGTGGCAGTACGTTT - 840
  - F W T T S P K C L S D V V L F C G S T F
    S G P R L P N A * V T L Y C F V. A V R F
     L D H V S Q M L E * R C T V L W Q Y V F
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841 - TTGGCGAGGCTTTTTAGATGCCTCAGCAGCAGATTTCTTAGTGACAGTTTGGCCTTGTTG - 900
    -LARLFRCLSSRFLSDSLALL
      W R G F L D A S A A D F L V T V W P C C
       GEAF* MPQQIS**QFGLVV
 901 - TTGTTGGCCTTTACCAGAAACTTTGCTCTCAAGCTGGTTCAATCTGTCTAGCAGCAATAG - 960
    -LLAFTRNFALKLVQSV*QQ*
      CWPLPETLLSSWFNLSSSNS
       V G L Y Q K L C S Q A G S I C L A A I A
 961 - CGCGAGGGCAGTTTCACCACCTCCGCTAGCCATTCGAGCAGGAGAATTTCCCCTACTGCT - 1020
    -REGSFTTSASHSSRRISPTA
    - ARAVSPPPLAIRAGEFPLLL
      RGQFHHLR*PFEQENFPYCC
1021 - GCCAGGAGTTGAATTTCTTGAATTACCGCGACTACGTGATGAGGAGGGGAGAAGAGGCTTG - 1080
    - A R S * I S * I T A T T * * G A R R G L
    - PGVEFLELPRLRDEEREEA *
      Q E L N F L N Y R D Y V M R S E K R L D
1081 - ACTGCCGCCTCTGCTTCCCTCTGCGTAGAAGCCTTTTGGCAATGTTGTTCCTTGAGGAAG - 1140
    -TAASASLCVEAFWQCCSLRK
     LPPLLPSA * KPFGNVVP * GS
       CRLCFPLRRSLLAMLFLEEV
1141 - TTGTAGCACGGTGGCAGCATTGTTATTAGGATTGCGGGTGCCAATGTGGTCTTTGGGTGT - 1200
    -L * H G G S I V I R I A G A N V V F G C
    - C S T V A A L L G L R V P M W S L G V
      V A R W Q H C Y * D C G C Q C G L W V Y
1201 - ATTCAAGGCTCCCTCAGTTGCAACCCATACGATGCCTTCTTTGTTAGCGCCGTAGGGAAG - 1260
    -I Q G S L S C N P Y D A F F V S A V G K
    - F K A P S V A T H T M P S L L A P * G S
      S R L P Q L Q P I R C L L C * R R E V
1261 - TGAAGCTTCTGGGCCAGTTCCTAGGTAATAGAAGTACCATCTGGGGCTGAGCTCTTTCAT - 1320
    - * S F W A S S * V I E V P S G A E L F H
    - E A S G P V P R * * K Y H L G L S S F I
       1321 - TTTGCCGTCACCACGAACTCGTCGGGTAGCTCTTCGGTAGTAGCCAATTTGGTCATC - 1380
    -FAVTTTNSSGSSSVVANLVI
     L P S P P R T R R V A L R * * P I W S S
       CRHHHELVG * LFGSSQFGHL
1381 - TGGACCACTATTGGTGTTGATTGGAACGCCCTGGCCTCGAGGGAATCTAAGTTCCTCCTT - 1440
    -WTTIGVDWNALASRESKFLL
     G P L L V L I G T P W P R G N L S S S L
      DHYWC*LERPGLEGI*VPPC
1441 - GCCATGCTGAGTGAGAGCTGTGAACCAAGACGCAGTATTATTGGGTAAACCTTGGGGTCG - 1500
    - A M L S E S C E P R R S I I G * T L G S
     P C * V R A V N Q D A V L L G K P W G R
H A E * E L * T K T Q Y Y W V N L G V G
1501 - GCGCTGTTTTGGCCTTGCCCCATTGCGTCCTCCATTCTGGTTATTGTCAGTTGAATCTGT - 1560
    -ALFWPCPIASSILVIVS * I C
     RCFGLAPLRPPFWLLSVESV
      A V L A L P H C V L H S G Y C Q L N L W
1561 - GGGTCCACCAAATGTAATGCGGGGGGCACTACGTTGGTTTGATTGGGGTCCATTATCAGA - 1620
    -GSTKCNAGGTTLV*LGSIIR
       \hbox{\tt G} \quad \hbox{\tt P} \quad \hbox{\tt N} \quad \hbox{\tt V} \quad \hbox{\tt M} \quad \hbox{\tt R} \quad \hbox{\tt G} \quad \hbox{\tt A} \quad \hbox{\tt L} \quad \hbox{\tt R} \quad \hbox{\tt W} \quad \hbox{\tt F} \quad \hbox{\tt D} \quad \hbox{\tt W} \quad \hbox{\tt G} \quad \hbox{\tt P} \quad \hbox{\tt L} \quad \hbox{\tt S} \quad \hbox{\tt D} 
      V H Q M * C G G H Y V G L I G V H Y Q T
1621 - CATTTTAATTTGTTCGTTTATTTAAAACAACAAGTACGTCTCTAAATGCAGCAGTTTGGT - 1680
   - H F N L F V Y L K Q Q V R L * M Q Q F G
- I L I C S F I * N N K Y V S K C S S L V
      F * F V R L F K T T S T S L N A A V W *
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1681 - GACCTTCATGAAGGTACCAACACCTAGCTATAAGCGCACCACCAGCTGGATCTTGACAGT - 1740
    -DLHEGTNT * L * A H H Q L D L D S
     T F M K V P T P S Y K R T T S W I L T V
      PS * R Y Q H L A I S A P P A G S * Q L
1741 - TGATAGTAACATTAGGTGTGCATGTTTGAACCATAGTGTGCCATCTATGAAAAGGTAAAA - 1800
    - * * * H * V C M F E P * C A I Y E K V K
     D S N I R C A C L N H S V P S M K R * N
      I V T L G V H V * T I V C H L * K G K T
1801 - CCTTTCCTAGAGCACAAAGCCAAGCAGTGCTATAAGTATTACCCCTAGTGTTGTACCTTA - 1860
    - P F L E H K A K Q C Y K Y Y P * C C T L
    - L S * S T K P S S A I S I T P S V V P Y
     FPRAQSQAVL*VLPLVLYLT
1861 - CAAGGATCTTCAAGCACATGAGGTTTATTAGATGCACAGCGCTGTACTACAGTGCATATG - 1920
    -QGSSST*GLLDAQRCTTVHM
    - K D L Q A H E V Y * M H S A V L Q C I C
     RIFKHMRFIRCTALYYSAYA
1921 - CAACTGCATAGAGAAATACAAGTCAAAACAATGAGAAGTTTCATGTTCGTTTAGACTTTG - 1980
    -QLHREIQVKTMRSFMFV*TL
    - N C I E K Y K S K Q * E V S C S F R L W
     TA*RNTSQNNEKFHVRLDFG
1981 - GTACAAGGTTCTTCTAGATCCTGGATTTCGAGTGAAAACCAAAATATAATAAGCATTATT - 2040
    -V Q G S S R S W I S S E N Q N I I S I I
   - Y K V L L D P G F R V K T K I * * A L L
     TRFF*ILDFE*KPKYNKHY*
2041 - AAAACAAGGAATAGCAGAAAGGCTAAAAAGCACAAATAGAAGTCAATTAAAGTGAGCTCA - 2100
   -KTRNSRKAKKHK*KSIKVSS
   - K Q G I A E R L K S T N R S Q L K * A H
     NKE * QKG * KAQIEVN * SELI
2101 - TTCATTCTGTCTTTCTCTTAATGGTGAAGCAAAGTATTAAAAATACTAGAGCAGCAACAA - 2160
   -FILSFS * W * S K V L K I L E Q Q Q
   - S F C L S L N G E A K Y * K Y * S S N N
     H S V F L L M V K Q S I K N T R A A T M
2161 - TGAGAAAAGTGGCGAGTAGAGCTCTTGTTGAACCTCCTCTTGTCTGATGAAAAGTTTTG - 2220
   - * E K V A S R A L V E P P L V * * K V L
   - E K K W R V E L L N L L S D E K F W
     R K S G E * S S C * T S S C L M K S F G
2221 - GTGAAACTGATCTTGCACGCAGCTGATAGGTATGTCGAGTACCGTCAGCACAAGCAAAAG - 2280
   -V K L I L H A A D R Y V E Y R Q H K Q K
     * N * S C T Q L I G M S S T V S T S K S
      ETDLARS**VCRVPSAQAKA
2281 - CAAAGTGTGTGCTAGTGCAAGTTAGTGCAAATTTATTGTCAGCAAGAGGGTGAAATGGTG - 2340
   - Q S V C \star C K L V Q I Y C Q Q E G E M V
   - KVCASAS * CKFIVSKRVKW *
      2341 - AATTGCCCTCGTATGTTCCTGATGGGCAAGGTTCTTTTAGTAGTACAGTCGTACCTCTAA - 2400
   -NCPRMFLMGKVLLVVQSYL*
   - I A L V C S * W A R F F * * Y S R T S N
     L P S Y V P D G Q G S F S S T V V P L T
- H T P D S D I A R K M * I Q S M S G R E
- T L L I V I * L A R C K Y N Q C Q E E N
    HS***YSSQDVNTINVRKRI
2461 - TAATTTTCATGTTCGTTTTATGGATAATCTAACTCCATAGGTTCTTCATCATCTAACTCC - 2520
   - * F S C S F Y G * S N S I G S S S N S
   - N F H V R F M D N L T P * V L H H L T P
     I F M F V L W I I * L H R F F I I * L R
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2521 - GAATAATTCTTCTTAGTTAGAGGCTTAAATAATTGTCTCACTATTGAACTTATTATAACG - 2580
    -E * F F L V R G L N N C L T I E L I I T
    - N N S S * L E A * I I V S L L N L L * R
      I I L L S * R L K * L S H Y * T Y Y N V
2581 - TCAAGATTCCAAATAGCAATCCTGAAAGTCCTCATAATGATAATCAATATCTCTGCTATT - 2640
    -S R F Q I A I L K V L I M I I N I S A I
    - Q D S K * Q S * K S S * * * S I S L L L
      K I P N S N P E S P H N D N Q Y L C Y C
2641 - GTAACCTGGAAGTCAACAAGATGAAACATCTGTTGTCACTTACTGTACTAGCAAAGCAAT - 2700
    -V T W K S T R * N I C C H L L Y * Q S N
     * P G S Q Q D E T S V V T Y C T S K A I
     N L E V N K M K H L L S L T V L A K O Y
2701 - ATTGTCGTTGCTACCGGCGTGGTCTGTATTTAATTTATAGTTTCCAATACGGTAGCGGTT - 2760
    -IVVATGVVCI*FIVSNTVAV
    - L S L L P A W S V F N L * F P I R * R L
      C R C Y R R G L Y L I Y S F Q Y G S G C
2761 - GTATGCAGCAAAACCTGAATCAGTGCCTACACGCTGCGACGCTCCTAATTTGTAATAAGA - <2820
   -V C S K T * I S A Y T L R R S * F V I R
   - Y A A K P E S V P T R C D A P N L * * E
      MQQNLNQCLHAATLLICNKK
2821 - AAGCGTTCGTGATGTAGCCACAGTGATCTCTTTTGGCAGGTCCTTAATGTCACAGCGCCC - 2880
   -KRS * C S H S D L F W Q V L N V T A P
   - S V R D V A T V I S F G R S L M S Q R P
     AFVM*PQ*SLLAGP*CHSAL
2881 - TAGGGAGTGTCCGGCCATTCGCAAGTGACCACGAATGATCACAGCACCAATGACAAGTTC - 2940
   - * G V S G H S Q V T T N D H S T N D K F
   - R E C P A I R K * P R M I T A P M T S S
     GSVRPFASDHE*SQHQ*QVH
2941 - ACTTTCCATGAGCGGTCTGGTCACAATTGTCCCCCGGAGAGGCACATTGAGAAGAATGTT - 3000
   -TFHERSGHNCPPERHIEKNV
    LSMSGLVTIVPRRGTLRRMF
     FP*AVWSQLSPGEAH*EECL
-C F W V E * P H * A G T S K Q P E G S N
     V S G L N D H I E R V R A N S L K E A T
     F L G * M T T L S G Y E Q T A * R K Q R
3061 - GAAGTAGCTAAGCCACATCAAGCCTACAATACAAGCCATTGCAATCGCAATCCCGCCAGT - 3120
   -EVAKPHQAYNTSHCNRNPAS
    K * L S H I K P T I Q A I A I A I P P V
      S S * A T S S L Q Y K P L Q S Q S R Q S
- H P I N S V D N S K H K T S K C Y W P Q
     T Q L I L * T T A S T K Q A S V T G H K
     P N * F C R Q Q Q A Q N K Q V L L A T R
3181 - GAGCCAGAGGAAAACAAGCTTTATTATGTACAAAAACCTGTTCCGATTAGAATAGGCAAA - 3240
   -EPEENKLYYVQKPVPIRIGK
     S Q R K T S F I M Y K N L F R L E * A N
     ARGKQALLCTKTCSD*NRQI
3241 - TTGTAGTAACATAATCCAGGCTAGGAATAGGAAACCTATTACTAGGTTCCATTGTTCCAG - 3300
   - L * * H N P G * E * E T Y Y * V P L F Q
      S N I I Q A R N R K P I T R F H C S R
     V V T * S R L G I G N L L L G S I V P G
3301 - GAGTTGTTTAAGCTCCTCAACGGTAATAGTACCGTTGTCTGCCATGATAAGCAATGTTAA - 3360
   -ELFKLLNGNSTVVCHDKQC *
      C L S S S T V I V P L S A M I S N V K
         * A P Q R * * Y R C L P * * A M L K
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FIG. 12 Con't

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3361 - AGTTCCAAACAGAATAATAATAATAGTTAGTTCGTTTAGACCAGAAGATCAGGAACTCCT - 3420
    -SSKQNNNNS*FV*TRRSGTP
      V P N R I I I I V S S F R P E D Q E L L
      FQTE****LVRLDQKIRNSF
3421 - TCAGAAGAGTTCAGATTTTTAACACGCGAGTAGACGTAAACCGTTGGTTTTACTAAACTC - 3480
    -SEEFRFLTRE*TVGFTKL
    - Q K S S D F * H A S R R K P L V L L N S
      RRVQIFNTRVDVNRWFY*TH
3481 - ACGTTAACAATATTGCAGCAGTACGCACAATCGAAGCGCAGTAAGGATGGCTAGTGTG - 3540
    -TLTILQQYAHNRSAVRMASV
    - R * Q Y C S S T H T I E A Q * G W L V *
      V N N I A A V R T Q S K R S K D G * C D
3541 - ACTAGCAAGAATACCACGAAAGCAAGAAAAAGAAGTACGCTATTAACTATTAACGTACCT - 3600
    -TSKNTTKARKRSTLLTINVP
    - L A R I P R K Q E K E V R Y * L L T Y L
      * Q E Y H E S K K K Y A I N Y * R T C
3601 - GTTTCTTCCGAAACGAATGAGTACATAAGTTCGTACTCACTTTCTTGTGCTTACAAAGGC - 3660
    -V S S E T N E Y I S S Y S L S C A Y K G
    - F L P K R M S T * V R T H F L V L T K A
      FFRNE * V H K F V L T F L C L Q R H
3661 - ACGCTAGTAGTCGTCGGCTCATCATAAATTGGATCCATTGCTGGATTAGCAACTCCT - 3720
    -TLVVVVGSS*IGSIAGLATP
    - R * * S S S A H H K L D P L L D * Q L L
      ASSRRRLIINWIHCWISNS *
3721 - GAAGAGCCGTCGATTGTGTATTTGCACATTCGGTGGGTCTTTAACAAGCTTGTTAAAG - 3780
    -EEPSIVCICTFGGSLTSLLK
    - K S R R L C V F A H S V G L * Q A C * R
      R A V D C V Y L H I R W V F N K L V K D
3781 - ATGAAGAATGTAGCATTTTCAATACCAGTGTCTGTAGTAATTTGTGTAGACTCAAGCTGG - 3840
    - M K N V A F S I P V S V V I C V D S S W
      * R M * H F Q Y Q C L * * F V * T Q A G
     EECSIFNTSVCSNLCRLKLV
3841 - TAGTAAACTTCGGTGAAATAGCCATGTACAACGACATAGTCTTTAACACCTGAGTGCCTA - 3900
    - * * T S V K * P C T T T * S L T P E C L
     SKLR*NSHVQRHSL*HLSAY
      V N F G E I A M Y N D I V F N T * V P I
3901 - TCCTCAGAATAACCACCAATTTGGTAGTCTTCTTTGAGTTTTGGTGTTGAAATGCCGTCA - 3960
    -SSE * PPIW * SSLSFGVEMPS
     PQNNHQFGSLL*VLKCRH
      LRITTNLVVFFEFWC*NAVT
3961 - CCTTCAGTAACGACAATTGTATCTGTGACACTGTTATATGGTATACAGTAGTCATAGTTA - 4020
   - P S V T T I V S V T L L Y G I Q * S * L
- L Q * R Q L Y L * H C Y M V Y S S H S Y
      F S N D N C I C D T V I W Y T V V I V M
4021 - TGTGTGTGCCAGCAAACAAAGTAGTTGGCATCATAAAGTAATGGGTTCTTGGATTTGCAC - 4080
   -CVCQQTK*LAS*SNGFLDLH
      \begin{smallmatrix} V & C & A & S & K & Q & S & S & W & H & H & K & V & M & G & S & W & I & C & T \\ \end{smallmatrix} 
      C V P A N K V V G I I K * W V L G F A L
4081 - TTCCAACAAGCCAACATCTCATAATAATTCTACATGCGTTGATGCATTGTAGAAAATAT - 4140
   -FQQSQHLIIILHALMHCRKY
-SNKANIS**FYMR*CIVENI
      PTKPTSHNNSTCVDAL*KIY
4141 - ATCAAGGCATAGAGGTACAAAAATTGCGCCTCCTTACCTGCAGCGACAAGCAAAAGATGT - 4200
   -I K A * R Y K N C A S L P A A T S K R C
     S R H R G T K I A P P Y L Q R Q A K D V
      Q G I E V Q K L R L L T C S D K Q K M *
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4201 - GAATAGATGGTAACAAATAGCAGCAGTAAATTGCAAATGAACTGGAAGCCCTTATAAAGG - 4260
    -E * M V T N S S S K L Q M N W K P L * R
    - N R W * Q I A A V N C K * T G S P Y K G
       I D G N K * Q Q * I A N E L E A L I K G
 4261 - GCTAGCTGCCATCTTTTATTGAGCGCAATTATTTTGGTAGCGCTCTGAAAAACAGCAAGA - 4320
    -ASCHLLLSAIILVAL * KTAR
    - L A A I F Y * A Q L F W * R S E K Q Q E
       * L P S F I E R N Y F G S A L K N S K K
 4321 - AATGCAACGCCAATAACAAGCCATCCGAAAGGGAGTGAGGCTTGTAGCGGTATCGTTGCT - 4380
    -NATPITSHPKGSEACSGIVA
    - M Q R Q * Q A I R K G V R L V A V S L L
      C N A N N K P S E R E * G L * R Y R C C
4381 - GTAGCATGAACAGTACTTGCAGGAGAAGCATTGTCAATTTTTACTGGCTGTGCAGTAATT - 4440
    -VA * T V L A G E A L S I F T G C A V I
      * H E Q Y L Q E K H C Q F L L A V Q * L
      SMNSTCRRSIVNFYWLCSN*
4441 - GATCCAAGAGTAAAAAATCTCATAAACAAATCCATAAGTTCGTTTATGTGTAATGTAATT - 4500
    -DPRVKNLINKSISSFMCNVI
    - I Q E * K I S * T N P * V R L C V M * F
      S K S K K S H K Q I H K F V Y V * C N L
4501 - TGACACCCTTGAGAACTGGCTCAGAGTCATCCTCATCAAACTTGCAGCAAGAACCACAAG - 4560
    - * H P * E L A Q S H P H Q T C S K N H K
    - D T L E N W L R V I L I K L A A R T T R
      T P L R T G S E S S S S N L Q Q E P Q E
-SMHP * GNCNN * SCNKARL * P
    - A C T L E A T A T T S H A T K Q D C N H
      H A P L R Q L Q Q L V M Q Q S K I V T M
4621 - TGACGATGGCAATTAGTCCAGCAATGAAGCCGAGCCAAACATACCAAGGCCATTTAATAT - 4680
    - * R W Q L V Q Q * S R A K H T K A I * Y
    - D D G N * S S N E A E P N I P R P F N I
      T M A I S P A M K P S Q T Y Q G H L I Y
4681 - ATTGCTCATATTTTCCCAATTCTTGAAGGTCAATGAGTGATTCATTTAAATTTTTAGCGA - 4740
    -IAHIFPILEGQ*VIHLNF*R
-LLIFSQFLKVNE*FI*IFSD
      C S Y F P N S * R S M S D S F K F L A T
4741 - CCTCATTGAGGCGGTCAATTTCTTTTTGAATGTTGACGACAGAAGCGTTAATGCCTGAAA - 4800
    -PH * G G Q F L F E C * R Q K R * C L K
     LIEAVNFFLNVDDRSVNA * N
      S L R R S I S F * M L T T E A L M P E M
4801 - TGTCGCCAAGATCAACATCTGGTGATGTATGATTTTTGAAGTACTTGTCCAGCTCTTCTT - 4860
    -CRQDQHLVMYDF*STCPALL
     V A K I N I W * C M I F E V L V Q L F F
      SPRSTSGDV*FLKYLSSSSL
4861 - TGAATGAGTCAAGCTCAGGTTGCAGAGGATCATAAACTGTGTTGTTAATGATGCCAATAA - 4920
   - * M S Q A Q V A E D H K L C C * * C Q *
   - E * V K L R L Q R I I N C V V N D A N N
- N E S S G C R G S * T V L L M M P I T
4921 - CGACATCACAATTTCCTGAGACAAATGTATTGTCTGTAGTAATTATTTGTGGAGAAAAGA - 4980
   - R H H N F L R Q M Y C L * * L F V E K R
- D I T I S * D K C I V C S N Y L W R K E
      T S Q F P E T N V L S V V I I C G E K K
4981 - AGTTCCTCTGTGTAATAAACCAAGAAGTGCCATTAAACACAAAAACACCTTCACGAGGGA - 5040
   V P L C N K P R S A I K H K N T F T R E
     F L C V I N Q E V P L N T K T P S R G K
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5041 - AGTATGCTTTGCCTTCATGACAAATTGCTGGCGCTGTGGTGAAGTTCCTCTCCTGGGATG - 5100
     -S M L C L H D K L L A L W * S S P G M
      V C F A F M T N C W R C G E V P L L G W
       Y A L P S * Q I A G A V V K F L S W D G
 5101 - GCACATACGTGACATGTAGGAAGACACCATGCGGGGCTGCTTGTGGGAAGGACATAA - 5160
    -AHT * H V G R Q H H A G L L V G R T *
     HIRDM * EDN TMRGCLWEGHK
       5161 - GGTGGTAGCCCTTTCCACAAAAGTCAACTCTTTTTGATTGTCCAAGAACACACTCAGACA - 5220
    -GGSPFHKSQLFLIVQEHTQT
    - V V A L S T K V N S F * L S K N T L R H
      W * P F P Q K S T L F D C P R T H S D I
5221 - TTTTAGTAGCAGCAGATTAGCAGAAGCCCTGATTTCAGCAGCCCTGATTAGTTGTTGTG - 5280
    - F * * Q Q D * Q K P * F Q Q P * L V V V
    - FSSSKISRSPDFSSPD * LLC
      LVAARLAEALISAALISCCV
5281 - TTACATAGGTTTGAAGGCTTTGAAGTCTGCCTGTAATTAACCTGTCAATTTGTACCTCCG - 5340
    -LHRFEGFEVCL*LTCQFVPP
     Y I G L K A L K S A C N * P V N L Y L R
      T * V * R L * S L P V I N L S I C T S A
5341 - CCTCGACTTTATCAAGTCGCGAAAGGATATCATTTAGCACACTTGAAATTGCACCAAAAT - 5400
    -PRLYQVAKGYHLAHLKLHQN
    - L D F I K S R K D I I * H T * N C T K I
      STLSSRERISFSTLEIAPKL
5401 - TAGAGCTAAGTTGTTTAACAAGTGTGTTTAATGCTTGAGCATTCTGGTTAACAACGTCTT - 5460
    - * S * V V * Q V C L M L E H S G * Q R L
    - R A K L F N K C V * C L S I L V N N V L
      ELSCLTSVFNA*AFWLTTSC
5461 - GCAGCTTGCCCAATGCAGTTGATGTTGTTAAGTGATTCTTGAATTTGACTAATCGCCT - 5520
    -AACPMQLMLL*VILEFD*SP
     Q L A Q C S * C C C K * F L N L T N R L
     S L P N A V D V V V S D S * I * L I A L
5521 - TGTTAAATTGGTTGGCGATTTGTTTTTGGTTCTCATAGAGAACATTTTGGGTAACTCCAA - 5580
    -C * I G W R F V F G S H R E H F G * L Q
    - V K L V G D L F L V L I E N I L G N S N
      L N W L A I C F W F S * R T F W V T P M
5581 - TGCCATTGAACCTATATGCCATTTGCATAGCAAAAGGTATTTGAAGAGCAGCGCCAGCAC - 5640
    -C H * T Y M P F A * Q K V F E E Q R Q H
   - A I E P I C H L H S K R Y L K S S A S T
      PLNLYAICIAKGI*RAAPA
5641 - CAAATGTCCATCCAGCAGTGGCAGTACCACTAACTAGAGCAGCAGTGTAGGCAGCAATCA - 5700
   -QMSIQQWQYH*LEQQCRQQS
   - K C P S S S G S T T N * S S V G S N H
       \begin{smallmatrix} N & V & H & P & A & V & A & V & P & L & T & R & A & A & V & \star & A & A & I & I \\ \end{smallmatrix} 
5701 - TATCATCAGTGAGCAGAGGTGGCAACACTGTAAGTCCATTGAACTTCTGCGCACAAATGA - 5760
   - Y H Q * A E V A T L * V H * T S A H K *
   - I I S E Q R W Q H C K S I E L L R T N E
      S S V S R G G N T V S P L N F C A Q M R
5761 - GATCTCTAGCATTAATATCACCTAGGCATTCGCCATATTGCTTCATGAAGCCAGCATCAG - 5820
   -DL * H * Y H L G I R H I A S * S Q H Q
   - ISSINIT * A F A I L L H E A S I S
      S L A L I S P R H S P Y C F M K P A S A
5821 - CGAGTGTCACCTTATTAAAGAGCAAGTCCTCAATAAAAGACCTCTTAGTTGGCTTTAGAG - 5880
   -RVSPY*RASPQ*KTS*LALE
   - E C H L I K E Q V L N K R P L S W L * R
     S V T L L K S K S S I K D L L V G F R G
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5881 - GGTCAGGTAATATTTGTGAAAAATTAAAACCACCAAAATATTTCAAAGTTGGGGTTTTGT - 5940
    -GQVIFVKN*NHQNISKLGFC
      V R * Y L * K I K T T K I F Q S W G F V
       S G N I C E K L K P P K Y F K V G V L Y
 5941 - ACATTTGTTTGACTTGAGCGAACACTTCACGTGTGTTGCGATCCTGTTCAGCAGCAATAC - 6000
    -TFV * LERTLH V C C D P V Q Q Q Y
    - H L F D L S E H F T C V A I L F S S N T
      I C L T * A N T S R V L R S C S A A I P
 6001 - CTGAGAGTGCACGATTTAGTTGTGCAAAAGCTACCATATTGGAGAAGCAAATTAGCAC - 6060
    -LRVHDLVVCKSYHIGEAN*H
      * E C T I * L C A K A T I L E K Q I S T
      ESARFSCVQKLPYWRSKLAH
6061 - ATTCAGTAGAATCTCCGCAGATGTACATATTACAATCTACGGAGGTTTTAGCCATAGAAA - 6120
    -IQ * N L R R C T Y Y N L R R F * P * K
    - F S R I S A D V H I T I Y G G F S H R N
       S V E S P Q M Y I L Q S T E V L A I E T
6121 - CAGGCATTACTTCTGTAGTAATGCTAATTGAAAAGTTAGTAGGTATAGCAATGGTGTTAT - 6180
    - Q A L L L * * C * L K S * * V * Q W C Y
    - R H Y F C S N A N * K V S R Y S N G V I
      G I T S V V M L I E K L V G I A M V L L
6181 - TAGAGTAAGCAATTGAACTATCAGCACCTAAAGACATAGTATAAGCCACAATAGATTTTT - 6240
    - * S K Q L N Y Q H L K T * Y K P Q * I F
    - R V S N * T I S T * R H S I S H N R F L
      E * A I E L S A P K D I V * A T I D F W
6241 - GGCTAGTACTACGTAATAAAGAAACTGTATGGTAACTAGCACAAATGCCAGCTCCAATAG - 6300
    -G * Y Y V I K K L Y G N * H K C Q L Q *
    - A S T T * * R N C M V T S T N A S S N R
      L V L R N K E T V W * L A Q M P A P I G
6301 - GAATGTCGCACTCATAAGAAGTGTCGACATGCTCAGCTCCTATAAGACAGCCTGCTTGAG - 6360
    -ECRTHKKCRHAQLL*DSLLE
    - N V A L I R S V D M L S S Y K T A C L S
      M S H S \star E V S T C S A P I R Q P A \star V
6361 - TCTGGAATACATTGTTTCCAGTAGAATATATGCGCCAAGCTGGTGTGAGTTGATCTGCAT - 6420
    -SGIHCFQ * NICAKLV * V D L H
    - L E Y I V S S R I Y A P S W C E L I C M
      6421 - GAATTGCTGTAGAAACATCAGTGCAGTTAACATCTTGATATAGAACAGCAACTTCAGATG - 6480
    -ELL*KHQCS*HLDIEQQLQM
    - N C C R N I S A V N I L I * N S N F R *
      I A V E T S V Q L T S * Y R T A T S D E
6481 - AAGCATTTGTTCCAGGTGTAATTACACTTACACCCCCAAAAGAGCAAGGTGAAATGTCTA - 6540
    -KHLFQV*LHLHPQKSKVKCL
   - SICSRCNYTYTPKRAR * NV *
      A F V P G V I T L T P P K E Q G E M S N
6541 - ATATTTCAGATGTTTTAGGATCTCGAACGGAATCAGTGAAATCAGAAACATCACGGCCAA - 6600
   - I F Q M F * D L E R N Q * N Q K H H G Q
- Y F R C F R I S N G I S E I R N I T A K
      I S D V L G S R T E S V K S E T S R P N
6601 - ATTGTTGAAATGGTTGAAATCTCTTTGAAGAAGGAGTTAACACACCAGTACCAGTGAGTC - 6660
    -IVEMVEISLKKELTHQYQ*V
    L L K W L K S L * R R S * H T S T S E S
      C * N G * N L F E E G V N T P V P V S P
6661 - CATTAAAATTAAAATTGACACACTGGTTCTTAATAAGGTCAGTGGATAATTTTGGTCCAC - 6720
   - H * N * N * H T G S * * G Q W I I L V H
    I K I K I D T L V L N K V S G * F W S T
     L K L K L T H W F L I R S V D N F G P Q
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6721 - AAACCGTGGCCGGTGCATTTAAAAGTTCAAAAGAAAGTACTACAACTCTGTAAGGTTGGT - 6780
     - K P W P V H L K V Q K K V L Q L C K V G
      N R G R C I * K F K R K Y Y N S V R L V
T V A G A F K S S K E S T T T L * G W
 6781 - AGCCAATGCCAGTAGTGGTGTAAAAACCATAATCATTTAATGGCCAATAACAATTAAGAG - 6840
    -SQCQ * W C K N H N H L M A N N N * E
      A N A S S G V K T I I I * W P I T I K S
       P M P V V V * K P * S F N G Q * Q L R A
6841 - CAGGTGGGGTGCAAGGTTTGCCATCAGGGGAGAAAGGCACATTAGATATGTCTCTCAA - 6900
    -Q V G C K V C H Q G R K A H * I C L S Q
      R W G A R F A I R G E R H I R Y V S L K
       G G V Q G L P S G E K G T L D M S L S K
6901 - AGGGCCTAAGCTTGCCATGTCTAAGATACCTATATTTATAATTATAATTACCAGTTGAAG - 6960
    -RA * A C H V * D T Y I Y N Y N Y Q L K
    - G P K L A M S K I P I F I I I T S * S
      G L S L P C L R Y L Y L * L P V E V
6961 - TAGCATCAATGTTCCTAGTATTCCAAGCAAGGACACAACCCATGAAATCATCTGGCAATT - 7020
    - * H Q C S * Y S K Q G H N P * N H L A I
     S I N V P S I P S K D T T H E I I W Q F
      A S M F L V F Q A R T Q P M K S S G N L
7021 - TATAATTATAATCAGCAATAACACCAGTTTGTCCTGGCGCTATTTGTCTTACATCATCTC - 7080
    -YNYNQQ*HQFVLALFVLHHL
     I I I I S N N T S L S W R Y L S Y I I S
       * L * S A I T P V C P G A I C L T S S P
7081 - CCTTGACTACAAAAGAATCTGCATAGACATTGGAGAAGCAAAGATCATTCAACTTAGTGG - 7140
    -P * L Q K N L H R H W R S K D H S T * W
     L D Y K R I C I D I G E A K I I Q L S G
       L T T K E S A * T L E K Q R S F N L V A
7141 - CAGAAACGCCATAGCACTTAAAGGTTGAAAAAAATGTTGAGTTGTAGAGCACAGAGTAAT - 7200
    -QKRHST*RLKKMLSCRAQSN
     R N A I A L K G * K K C * V V E H R V I
       ETP*HLKVEKNVEL*STE*S
7201 - CAGCAACACAATTAGAAATTTTTTTTCTCTCCCATGCATAGACAGAAGGGAATTTAGTAG - 7260
    -QQHN * KFFFSPMHRQKGI * *
    - S N T I R N F F S L P C I D R R E F S S
      ATQLEIFFLSHA*TEGNLVA
7261 - CATTAAAAACCTCTCCAAAAGGACACAAGTTTGTAATATTAGGGAATCTCACAACATCTC - 7320
    - H * K P L Q K D T S L * Y * G I S Q H L
    - I K N L S K R T Q V C N I R E S H N I S
      L K T S P K G H K F V I L G N L T T S P
7321 - CTGAGGGAACAACCCTGAAATTAGAGGTCTGGTAAATTCCTTTGTCAATCTCAAAGCTCT - 7380
    - L R E Q P * N * R S G K F L C Q S Q S S
     * G N N P E I R G L V N S F V N L K A L
      EGTTLKLEVW*IPLSISKLL
7381 - TAACAGAGCATTTGAGTTCAGCAAGTGGATTTTGAGAACAATCAACAGCATCTGTGATTG - 7440
   - * Q S I * V Q Q V D F E N N Q Q H L * L
- N R A F E F S K W I L R T I N S I C D C
      T E H L S S A S G F * E Q S T A S V I V
7441 - TACCATTTTCATCATACTTGAGCATAAATGTAGTTGGCTTTAAATAGCCAACAAAATAGG - 7500
   - Y H F H H T * A * M * L A L N S Q Q N R
     T I F I I L E H K C S W L * I A N K I G
      P F S S Y L S I N V V G F K * P T K * A
7501 - CTGCAGCTGACGTGCCCCAAATGTCTTGAGCAGGTGAAAAGGCTGTAAGAATGGCTCTAA - 7560
   -LQLTCPKCLEQVKRL*EWL*
    CS * RAPNVLSR * KGCKNGSK
     A A D V P Q M S * A G E K A V R M A L K
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7561 - AATTTGTAATGTTAATACCAAGAGGCAACTTAAAAATAGGTTTCAAAGTGTTAAAACCAG - 7620
    -N L * C * Y Q E A T * K * V S K C * N Q
     I C N V N T K R Q L K N R F Q S V K T R
      F V M L I P R G N L K I G F K V L K P E
 7621 - AAGGTAGATCACGAACTACATCTATAGGTTGATAGCCCTTATAAACATAGAGAAACCCAT - 7680
    -KVDHELHL * VDSPYKHRETH
     R * I T N Y I Y R L I A L I N I E K P I
      GRSRTTSIG**PL*T*RNPS
7681 - CTTTATTTTTAAACACAAACTCTCGTAAGTGTTTAAAATTACCTGACTTTTCTGAAACAT - 7740
    -LYF * T Q T L V S V * N Y L T F L K H
    - FIFKHKLS * V FKIT * L F * N I
      L F L N T N S R K C L K L P D F S E T S
7741 - CAAGCGAAAAGGCATCAGATATGTACTCGAAAGTGCAATTAAATGCATTATCGAATATCA - 7800
    -QAKRHQICTRKCN*MHYRIS
    - K R K G I R Y V L E S A I K C I I E Y H
     S E K A S D M Y S K V Q L N A L S N I I
7801 - TAGTATGTGTCTGTGTACCCATGGGTTTAGAAACAGCAAAGAAGGGTTGTCACACAATT - 7860
    - * Y V S V Y P W V * K Q Q R K G C H T I
    - S M C L C T H G F R N S K E R V V T Q F
      V C V C V P M G L E T A K K G L S H N S
7861 - CAAAGTTACATGCTCGTATAACAACATTAGTAGAATTGTTAATAATAATCACCGACTGTG - 7920
    - Q S Y M L V * Q H * * N C * * * S P T V
    - K V T C S Y N N I S R I V N N N H R L *
     KLHARITTLVELLIITDCD
7921 - ACTTGTTGTTCATGGTAGAACCAAAAACCCAACCACGGACAACATTTGATTTCTCTGTGG - 7980
    -T C C S W * N Q K P N H G Q H L I S L W
     L V V H G R T K N P T T D N I * F L C G
      L L F M V E P K T Q P R T T F D F S V A
7981 - CAGCAAAATAAATACCATCCTTAAAAGGTATGACAGGGTTGCCAAACGTATGATTAATAG - 8040
    -QQNKYHP*KV*QGCQTYD**
     S K I N T I L K R Y D R V A K R M I N S
     AK * I P S L K G M T G L P N V * L I V
-YETL * H * N K M E E I N P E L N K E
   - M K P C N I R I K W K K * I L S * I K S
      * N P V T L E * N G R N K S * V K * R V
8101 - TGTCTGATCTAAAAATTTCATCAGGATAGTAAACCCCCCTCATAGATGAAGTATGTTGAG - 8160
   -CLI * KFHQDSKPPS * MKYVE
   - V * S K N F I R I V N P P H R * S M L S
      S D L K I S S G * * T P L I D E V C * V
8161 - TGTAATTAGGAGCTTGAACATCATCAAAAGTGGTGCACCGGTCAAGGTCACTACCACTAG - 8220
   -CN * ELEHHQK WCTGQGHYH *
     V I R S L N I I K S G A P V K V T T T S
      * L G A * T S S K V V H R S R S L P L V
8221 - TGAGAGTAAGAAATAAGAAAATAAACATGTTCGTTTAGTTGTTAACAAGAATATCAC - 8280
   - * E * E I I R K * T C S F S C * Q E Y H
   - E S K K * * E N K H V R L V V N K N I T
      R V R N N K K I N M F V * L L T R I S L
8281 - TTGAAACCACAACTCTGTTGTTTTCTCTAATGATAAGCCTACCTTTTTCCAGAAGAGAAT - 8340
   -LKPQLCCFL***AYLFPEEN
     * N H N S V V F S N D K P T F F Q K R I
     ETTTLLFSLMISLPFSRRE*
8341 - AAATCATATCATTGATTTGATTCTCCTTAAGAGACATTACAGCAGTTCCTCTTAATTTAA - 8400
   -KSYH*FDSP*ETLQQFLLI*
   - N H I I D L I L K R H Y S S S * F K
     IISLI*FSLRDITAVPLNLR
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8401 - GAGGAAATTTGCTCATGTCAAAGAGTGAATAGGAAGACAACTGGATAGGATTTGTGTTCC - 8460
    -EEICSCQRVNRKTTG*DLCS
    - R K F A H V K E * I G R Q L D R I C V P
      G N L L M S K S E * E D N W I G F V F L
8461 - TCCAGAAAATGTAGTTAGCATGCATGGTATAGCCATCAATTTGTTCCTTCGGCTTGCCAA - 8520
    -S R K C S * H A W Y S H Q F V P S A C Q
    - PENVVSMHGIAINLFLRLAK
      Q K M * L A C M V * P S I C S F G L P R
8521 - GATAGTTAGCCCCAATTAAAAATGCTTCCGATGATGATGCATTTACATTTGTAACAAAAG - 8580
    -DS * PQ L K M L P M M M H L H L * Q K
    - I V S P N * K C F R * * C I Y I C N K S
      * L A P I K N A S D D D A F T F V T K A
8581 - CTGTCCACCATGAGAAATGGCCCATAAGCTTGTAAAGGTCAGCATTCCAAGAATGCTCTG - 8640
    -LSTMRNGP * ACKGQHSKNAL
    - C P P * E M A H K L V K V S I P R M L C
     V H H E K W P I S L * R S A F Q E C S V
8641 - TTATCTTTACAGCTATAGAACCACCCAGGGCTAGTTTTTGCTTTATAAATCCACACAGAT - 8700
    -LSLQL*NHPGLVFAL*IHTD
    Y L Y S Y R T T Q G * F L L Y K S T Q I
      I F T A I E P P R A S F C F I N P H R *
8701 - AAGTGAAAAACCCTTCTTTAGAGTCATTCTCTTTTGTCACATGTTTTGGTCCTAGGGTCAT - 8760
    -K * K T L L * S H S L L S H V W S * G H
    - S E K P F F R V I L F C H M F G P R V I
      V K N P S L E S F S F V T C L V L G S Y
8761 - ACATATCGCTAATAATAAGGTCCCATTTATTAGCCGTATGTACTGTTGCACAGTCTCCAA - 8820
    -TYR * * * GPIY * PYVLLHSLQ
    - H I A N N K V P F I S R M Y C C T V S N
     I S L I I R S H L L A V C T V A Q S P I
8821 - TTAAAGTAGAATCTGCGTCGGAGACGAAGTCATTAAGATCTGAATCGACAAGTAGTGTGC - 8880
   -LK * NLRRRSH * DLNRQVVC
     * S R I C V G D E V I K I * I D K * C A
      K V E S A S E T K S L R S E S T S S V P
8881 - CAGTTGGCAACCATTGTCTGAGCACAGCTGTACCTGGTGCAACTCCTTTATCAGAGCCAG - 8940
   - Q L A T I V * A Q L Y L V Q L L Y Q S Q
- S W Q P L S E H S C T W C N S F I R A S
      V G N H C L S T A V P G A T P L S E P A
-HQSE*LSCCRVQLK*VYLSI
     T K V N N S H V V G Y S * S K C I * V L
      PK * I T L M L * G T A K V S V F K Y *
9001 - GACACAGTTGAGTATACTTTGCGACATTCATCATTATTCCTTTTGGTATAACAGCATTTT - 9060
   -DTVEYTLRHSSLFLLV*QHF
     TQLSILCDIHHYSFWYNSIF
      HS * V Y F A T F I I I P F G I T A F S
9061 - CACCATAATTCTGAAGGTCACACTTTTCAAGAAGCATTCTTTGCATCTTGTACAAGTTAG - 9120
   - H H N S E G H T F Q E A F F A S C T S *
     TIILKVTLFKKHSLHLVQVR
     P * F * R S H F S R S I L C I L Y K L G
9121 - GCATCGCAACACCTGGTTGCCACGCTTGACTTGCTTGTAGTTTTGGGTAGAAGGTTTCAA - 9180
   - A S Q H L V A T L D L L V V L G R R F Q
     I A T P G C H A * L A C S F G * K V S T
9181 - CATGTCCATCCTTACACCAAAGCATGAATGAAATTTCAGCATAGTCAATTGTAACCTTGA - 9240
   -HVHPYTKA*MKFQHSQL*p*
   - M S I L T P K H E * N F S I V N C N L D
     C P S L H Q S M N E I S A * S I V T L T
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9241 - CCACTTTTGAAATCACTGACAAATCTTGTGACTTATTATCTCGACAAAGTCATCAAGTA - 9300
     - P L L K S L T N L V T L L S R Q S H Q V
      H F * N H * Q I L * L Y Y L D K V I K *
         FEITDKSCDFIISTKSSSK
 9301 - AAAGATCAATCACAGAACACACATTTTGATGAACCTGTTTGCGCATCTGTTATGAAGT - 9360
     -KDQSQNTHILMNLFAHLL * S
      KINHRTHTF**TCLRICYEV
RSITEHTHFDEPVCASVMK*
 9361 - AATTTTCACTGTGCTGTCCATAGGGATAAAATCCTCTAATTTAAGTGGTGAATCTTGTG - 9420
     -NFSLCCP*G*NPLI*VVNLV
      IFHCAVHRDKIL*FKW*IL*
      F F T V L S I G I K S S N L S G E S C E
 9421 - AGCGCTTGGCTAAGCCTATCATTAAATGAAGACCGCCAAGTTGTCCATGACTGAAATCTC - 9480
     -SAWLSLSLNEDRQVVHD*NL
      A L G * A Y H * M K T A K L S M T E I S
       R L A K P I I K * R P P S C P * L K S P
 9481 - CATAAACGATGTGTTCGAAGGCATAGCCCTCGAGCTTATATCGCTGTATGAATTCATCCA - 9540
     - H K R C V R R H S P R A Y I A V * I H P
      INDVFEGIALELISLYEFIH
       * T M C S K A * P S S L Y R C M N S S I
 9541 - TAGCGAGCTCGAGAAAGTCAGTTTCCATTTGTGATCTGGGCTTAAAATCCTCTAAGTCTC - 9600
     - * R A R E S Q F P F V I W A * N P L S L
     - S E L E K V S F H L * S G L K I L * V S
      ASSRKSVSICDLGLKSSKSL
 9601 - TGCTCTGAGTAAAGTAGGTTTCAGGCAACTGTTGAATAATGCCGTCTACTTTCTTAAAGT - 9660
    -CSE*SRFQATVE*CRLLS*S
    - A L S K V G F R Q L L N N A V Y F L K V
      L * V K * V S G N C * I M P S T F L K *
 9661 - AGTTAAACTGTGTTTTTACTGATTCTCCAATTAATGTGACTCCATTGACGCTAGCTTGTG - 9720
    -S * T V F L L I L Q L M * L H * R * L V
    - V K L C F Y * F S N * C D S I D A S L C
       L N C V F T D S P I N V T P L T L A C A
 9721 - CTGGTCCCTTTGAAGGTGTTAGACCTTTGACTGAACCTTCTGTTATTAAAACACCATTAC - 9780
    - L V P L K V L D L * L N L L L K H H Y
    - W S L * R C * T F D * T F C Y * N T I T
       G P F E G V R P L T E P S V I K T P L R
 9781 - GGGCGTTTCTAAAAAGGTCTACCTGTCCTTCCACTCTACCATCAAACAAGACAGTAAGTG - 9840
    -GRF*KGLPVLPLYHQTRQ*V
      G V S K K V Y L S F H S T I K Q D S K *
       A F L K R S T C P S T L P S N K T V S E
-KNKHSQ*VSWQCQSLCRHLL
-RTSTLSRFLGNVSHCADTYC
        \begin{smallmatrix} E & Q & A & L & S & V & G & F & L & A & M & S & V & I & V & Q & T & P & I & V \\ \end{smallmatrix} 
9901 - TAGATACATGTGCTGGGGCTTCTCTTTTGTAGTCCCAGATTACAGTATTAGCAGCGATAT - 9960
    - * I H V L G L L F C S P R L Q Y * Q R Y
     RYMCWGFSFVVPDYSISSDI
       D T C A G A S L L * S Q I T V L A A I S
9961 - CAACACCCAAATTATTGAGTATCTTAATCTCTGGCACTGGTTTAATGTTACGCTTAGCCC - 10020
    -QHPNY*VS*SLALV*CYA*P
     NTQIIEYLNLWHWFNVTLSP
      T P K L L S I L I S G T G L M L R L A Q
10021 - AAAGCTCAAATGCAACATTAACAGGAAGTGTTGTCTTATTTTCAAAGATCTCCACATCAA - 10080
    -KAQMQH*QEVLSYFQRSPHQ
-KLKCNINRKCCLIFKDLHIN
      S S N A T L T G S V V L F S K I S T S I
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10081 - TACCATCTACCTTTGTGTAAACAGCATTATTAATGATGGAAACAGGTGCTTCGCCGGCGT - 10140
     -Y H L P L C K Q H Y * * W K Q V L R R R
      TIYLCVNSIINDGNRCFAGV
       PSTFV * TALLMMETGASPAC
10141 - GTCCATCAAAGTGTCCTTTATTAACAACATTATAAGCCACATTTTCTAAACTCTGTAACC - 10200
    -V H Q S V L Y * Q H Y K P H F L N S V T
    - S I K V S F I N N I I S H I F * T L * P
       PSKCPLLTTL * ATFSKLCNL
-W * M Y S T G Y K Y Q I V C K S I G * I
    - G K C I P Q V I S I K L F V N P * A K S
       V N V F H R L * V S N C L * I H R L N P
10261 - CAGCAGAAATCATATTATATGCATCCAAGTACTGTCGGTACTCATTTGCATGGTGTC - 10320
    -Q Q K S S Y Y M H P S T V G T H L H G V
    - S R N H H I I C I Q V L S V L I C M V S
       A E I I I L Y A S K Y C R Y S F A W C L
10321 - TGCAAACAGCACCACCTAAATTGCATCGTGTAATACACGTAGCAGATTTGAGTGGAACAT - 10380
    -CKQHHLNCIV*YT*QI*VEH
    - ANSTT * IASCNTRSRFEWNI
       QTAPPKLHRVIHVADLSGT*
10381 - AATCAATATCCGACACTACTTGTTTGCCATGAGACTCACAAGGACTATCAGAATAGTAAA - 10440
    -N Q Y P T L L V C H E T H K D Y Q N S K
     INIRHYLFAMRLTRTIRIVK
       SISDTTCLP*DSQGLSE**K
10441 - AGAAAGGCAATTGCTTTAAATTAGTAAATGCACTTTTATCGAAAGCTGGAGTGTGGAATG - 10500
    -R K A I A L N * * M H F Y R K L E C G M
     ERQLL*ISKCTFIESWSVEC
       K G N C F K L V N A L L S K A G V W N A
10501 - CATGCTTATTCACATACAAACTACCACCATCACAGCCTGGTAAGTTCAAGTTTGACAAGA - 10560
    - H A Y S H T N Y H H H S L V S S S L T R
       \begin{smallmatrix} M & L & I & H & I & Q & T & T & T & I & T & A & W & \star & V & Q & V & \star & Q & D \\ \end{smallmatrix} 
       C L F T Y K L P P S Q P G K F K F D K T
10561 - CTCTTGTGTCAAACCTACACAATTGCATTGGCTGGGTAACGATCAACGTTACAATTCC - 10620
    -L L C Q T Y T Q L H W L G N D Q R Y N S
      S C V K P T H N C I G W V T I N V T I P
      L V S N L H T I A L A G * R S T L O F O
10621 - AAAACAAACAAACACCATCAGTGAATTTATCGTGATGTGTAGCATAAGAATAGAAGAGTT - 10680
    -KTNKHHQ*IYRDV*HKNRRV
-KQTNTISEFIVMCSIRIEEF
      N K Q T P S V N L S * C V A * E * K S S
10681 - CCTCTATTTTGTAAGCTTTGTCACTACATGGCTGAGCATCGTAGAACTTCCATTCTACTT - 10740
    - P L F C K L C H Y M A E H R R T S I L L
      LYFVSFVTTWLSIVELPFYF
      SIL * ALSLHG * AS * NFHSTS
10741 - CAGCCTGAGGCACACTTGATAGCCTTTGGATTTCCAATGTCATGAAGAACTGGAAACT - 10800
    - Q P E A H T * * P L D F Q C H E E L E T
- S L R H T L D S L W I S N V M K N W K L
      A * G T H L I A F G F P M S * R T G N L
10801 - TATCAGCAAGCAATGCAGACTTCACAACCATGTGTTGTACTTTTCTGCAAGCAGAATTAA - 10860
    -Y Q Q A M Q T S Q P C V V L F C K Q N *
      I S K Q C R L H N H V L Y F S A S R I N
      S A S N A D F T T M C C T F L Q A E L T
10861 - CCCTCAGTTCATCTCCTATAATAGGGTATTCAACAGACCAATCAACGCGCTTAACAAAGC - 10920
    -PSVHLL**GIQQTNQRA*QS
        Q F I S Y N R V F N R P I N A L N K A
         S S S P I I G Y S T D Q S T R L T K H
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10921 - ACTCATGGACTGCTAAACATCTAGTCATGATAGCATCACAACTAGCCACATGTGCATTTC - 10980
     - L M D C * T S S H D S I T T S H M C I S
       S W T A K H L V M I A S Q L A T C A F P
10981 - CATGTACCTGGCAATGTTGGTCATGGTTACTCTGAAGGTTACCCGTAAAGCCCCACTGCT - 11040
     - H V P G N V G H G Y S E G Y P * S P T A
     - M Y L A M L V M V T L K V T R K A P L L
       CTWQCWSWLL*RLPVKPHC*
11041 - GAACATCAATCATAAATGGGTTATAGACATAGTCAAAACCCACAGAATGATTCCAGCAGG - 11100
    -E H Q S * M G Y R H S Q N P Q N D S S R
    - N I N H K W V I D I V K T H R M I P A G
       T S I I N G L * T * S K P T E * F Q Q A
11101 - CATAAGTATCTGATGAAGTAGAAAAGCAAGTTGCACGTTTGTCACACAGACAACACGTTC - 11160
    - H K Y L M K * K S K L H V C H T D N T F
    - I S I * * S R K A S C T F V T Q T T R S
       * V S D E V E K Q V A R L S H R Q H V L
11161 - TTTCAGGTCCAATCTTGACAAGGTACTTCATTGATGTAAGCTCAAAGCCATGCGCCCAAA - 11220
    -FQVQS*QSTSLM*AQSHAPK
    - F R S N L D K V L H * C K L K A M R P K
       S G P I L T K Y F I D V S S K P C A Q R
11221 - GGACGAACACGACTCTGTCTGACAATCCTTTCAGTGTATCACTGAGCATTTGTACTATCT - 11280
    -GRTRLCLTILSVYH*AFVLS
    - D E H D S V * Q S F Q C I T E H L Y Y L
       TNTTLSDNPFSVSLSICTIL
11281 - TAATACGCACTACATTCCAGGGCAAGCCTTTATACATGAGTGGTATAAGATGTTTAAACT - 11340
    - * Y A L H S R A S L Y T * V V * D V * T
    - N T H Y I P G Q A F I H E W Y K M F K L
       I R T T F Q G K P L Y M S G I R C L N W
11341 - GGTCACCTGGTGGAGGTTTTGCATTAACTCTGGTGAATTCTGTGTTATTTTCAGTGTCAA - 11400
    -G H L V E V L H * L W * I L C Y F Q C Q
     V T W W R F C I N S G E F C V I F S V N
       S P G G G F A L T L V N S V L F S V S T
11401 - CATAACCAGTCGGTACAGCTACTAAGTTAACACCTGTAGAAAATCCTAGCTGGAGAGGTA - 11460
    - H N Q S V Q L L S * H L * K I L A G E V
      I T S R Y S Y * V N T C R K S * L E R
       * P V G T A T K L T P V E N P S W R G R
11461 - GGTTAGTACCCACAGCATCTCTAGTTGCATGACAGCCCTCTACATCAAAGCCAATCCACG - 11520
    -G * Y P Q H L * L H D S P L H Q S Q S T
      V S T H S I S S C M T A L Y I K A N P R
       L V P T A S L V A * Q P S T S K P I H A
11521 - CACGAACGTGACGAATAGCTTCTCGCGGGTGATAAACATATTAGGGTAACCATTGACTT - 11580
    -HERDE*LLRG**TY*GNH*L
       \begin{smallmatrix} T & N & V & T & N & S & F & F & A & G & D & K & H & I & R & V & T & I & D & L \\ \end{smallmatrix} 
      RT * RIASSRVINILG * PLTW
11581 - GGTAATTCATTTTGAAACCCATCATAGAGATGAGTCTACGGTAGGTCATGTCCTTTGGTA - 11640
    -GNSF * NPS * R * VYGRSCPLV
      V I H F E T H H R D E S T V G H V L W Y
      * FILKPIIEMSLR * VMSFGM
11641 - TGCCTGGTATGTCAACACATAATCCTTCAGTCTTGAATTTTATATCAACGCTGAGGTGTG - 11700
    -CLVCQHIILQS*ILYQR*GV
      A W Y V N T * S F S L E F Y I N A E V C
      P G M S T H N P S V L N F I S T L R C V
11701 - TAGGTGCCTGTGTAGGATGAAGACCAGTAATGATCTTACTACAGTCCTTAAAAAGTCCAG - 11760
    - * V P V * D E D Q * * S Y Y S P * K V Q
      RCLCRMKTSNDLTTVLKKSS
       GACVG * RPV M I L L Q S L K S P V
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11761 - TTACATTTCTGCTTGTAATGTAGCCACATTGCGACGTGGTATTTCTAGACTTGTAAATT - 11820
     -LHFLLVM*PHCDVVFLDL*I
      Y I F C L * C S H I A T W Y F * T C K L
       T F S A C N V A T L R R G I S R L V N C
11821 - GCAGTTTGTCATAAAGATCTCTATCAGACATTATGCACAAAATGCCAATTTTTGCCCTTG - 11880
     -AVCHKDLYQTLCTKCQFLPL
     - Q F V I K I ·S I R H Y A Q N A N F C P C
       S L S * R S L S D I M H K M P I F A L V
11881 - TGATAGCCACATTGAAGCGGTTGACATTACAAGAGTGTGCTGTTTCAGTAGTTTGTGTGA - 11940
    - * * P H * S G * H Y K S V L F Q * F V *
    - D S H I E A V D I T R V C C F S S L C E
      I A T L K R L T L Q Ė C A V S V V C V N
11941 - ATATGACATAGTCATATTCAGAACCCTGTGATGAATCAACAGTCTGCGTAGGCAATCCTA - 12000
    -I * H S H I Q N P V M N Q Q S A * A I L
    - Y D I V I F R T L * * I N S L R R O S *
      M T * S Y S E P C D E S T V C V G N P K
12001 - AGATTTTTGAAGCTACAGCGTTCTGTGAATTATAAGGTGAGATAAAAACAGCTTTTCTCC - 12060
    -RFLKLQRSVNYKVR * KQLFS
    - D F * S Y S V L * I I R * D K N S F S P
       I F E A T A F C E L * G E I K T A F L Q
12061 - AAGCAGGATTGCGTGTAAGAAATTCTCTTACAACGCCTATTTGAGGTCTGTTGATTGCAG - 12120
    -KQDCV*EILLQRLFEVC*LQ
    - S R I A C K K F S Y N A Y L R S V D C R
       AGLRVRNSLTTPI*GLLIAD
12121 - ATGAAACATCATGTGTAATAACACCTTTGTAGAACATTTTGAAGCATTGAGCTGACTTAT - 12180
    -MKHHV * * HLCRTF * SIELTY
      * N I M C N N T F V E H F E A L S * L I
       ETSCVITPL*NILKH*ADLS
12181 - CCTTGTGTGCTTTTAGCTTATTGTCATAAACTAAAGCACTCACAGTGTCAACAATTTCAG - 12240
    - P C V L L A Y C H K L K H S Q C Q Q F Q
- L V C F * L I V I N * S T H S V N N F S
      LCAFSLLS*TKALTVSTISA
12241 - CAGGACAACGGCGACAAGTTCCAAGGAACATGTCTGGACCTATTGTTTTCATAAGTCTGC - 12300
    -QDNGDKFQGTCLDLLFS * VC
    - R T T A T S S K E H V W T Y C F H K S A
       G Q R R Q V P R N M S G P I V F I S L H
12301 - ACACTGAATTAAAATATTCTGGTTCTAGTGTGCCTTTAGTCAGCAATGTGCGGGGGGCTG - 12360
    -TLN*NILVLVCL*SAMCGGL-H*IKIFWF*CAFSQQCAGGW
       T E L K Y S G S S V P L V S N V R G A G
12361 - GTAATTGAGCAGGATCGCCAATATAGACGTAGTGTTTTGCACGAAGTCTAGCATTGACAA - 12420
    -VIEQDRQYRRSVLHEV*H*Q
      * L S R I A N I D V V F C T K S S I D N
       N * A G S P I * T * C F A R S L A L T T
12421 - CACTCAAGTCATAATTAGTAGCCATAGAGATTTCATCAAAGACTACAATGTCAGCAGTTG - 12480
    - H S S H N * * P * R F H Q R L Q C Q Q L
       Q V I I S S H R D F I K D Y N V S S C
       L K S * L V A I E I S S K T T M S A V V
12481 - TTTCTGGCAATGCATTTACAGTGCAGAAAACATACTGTTCTAGTGTTGAATTCACTTTGA - 12540
    -FLAMHLQCRKHTVLVLNSL*
      FWQCIYSAENILF*C*IHFE
       SGNAFTVQKTYCSSVEFTLN
12541 - ATTTATCAAAACACTCTACGCGCGCACGCGCAGGTATGATTCTACTACATTTATCTATGG - 12600
    -IYQNTLRAHAQV*FYYIYLW
       IKTLYARTRRYDSTTFIYG
      LSKHSTRARAGMILLHLSMG
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12601 - GCAAATATTTTAATGCCTTTTCACATAGGGCATCAACAGCTGCATGAGAGCATGCCGTAT - 12660
     - A N I L M P F H I G H Q Q L H E S M P Y
     - Q I F * C L F T * G I N S C M R A C R I
        K Y F N A F S H R A S T A A * E H A V Y
12661 - ACACTATGCGAGCAGATGGGTAATAGAGAGCAAGTCCGATGGCAAAATGACTCTTACCAG - 12720
     -T L C E Q M G N R E Q V R W Q N D S Y Q
     - H Y A S R W V I E S K S D G K M T L T S
        T M R A D G * * R A S P M A K * L L P V
12721 - TACCAGGTGGTCCTTGGAGTGTAGAGTACTTTTGCATGCCGACCTTTTGATAATTTGCAA - 12780
     -Y Q V V L G V * S T F A C R P F D N L Q
     - TRWSLECRVLLHADLLIICN
        P G G P W S V E Y F C M P T F * * F A T
12781 - CATTGCTAGAAAACTCATCTGAGATGTTGAGTGTTGGGTACAAGCCAGTAATTCTCACAT - 12840
     - H C * K T H L R C * V L G T S Q * F S H
     - I A R K L I * D V E C W V Q A S N S H I
        L L E N S S E M L S V G Y K P V I L T *
12841 - AGTGCTCTTGTGGCACTAGAGTAGGTGCACTAAGTGGCATTACAGTGTGAGATGTCAACA - 12900
     -SALVALE * VH * VALQCEMST
     - V L L W H * S R C T K W H Y S V R C Q H
         \texttt{C} \quad \texttt{S} \quad \texttt{C} \quad \texttt{G} \quad \texttt{T} \quad \texttt{R} \quad \texttt{V} \quad \texttt{G} \quad \texttt{A} \quad \texttt{L} \quad \texttt{S} \quad \texttt{G} \quad \texttt{I} \quad \texttt{T} \quad \texttt{V} \quad \star \quad \texttt{D} \quad \texttt{V} \quad \texttt{N} \quad \texttt{T} 
12901 - CAAAGTAATCACCAACATTCAACTTGTATGTCGTAGTACCTCTGTACACAACAGCATCAC - 12960
     -QSNHQHSTCMS*YLCTQQHH
      K V I T N I Q L V C R S T S V H N S I T
        K * S P T F N L Y V V P L Y T T A S P
12961 - CATAGTCACCTTTTTCAAAGGTGTACTCTCCAATCTGTACTTTACTATTTTTAGTTACAC - 13020
     -HSHLFQRCTLQSVLYYF*LH
      I V T F F K G V L S N L Y F T I F S Y T
       * S P F S K V Y S P I C T L L F L V T R
13021 - GGTAACCAGTAAAGACATAGTTTCTGTTCAATGGTGGTCTAGGTTTTCCAACCTCCCATG - 13080
     - G N Q * R H S F C S M V V * V F Q P P M
      V T S K D I V S V Q W W S R F S N L P *
        * P V K T * F L F N G G L G F P T S H E
13081 - AAAGATGCAATTCTCTGTCAGAGAGTACTTCGCGTACAGTGGCAATACCATATGACAGCT - 13140
     -KDAILCQRVLRVQWQYHMTA
      R C N S L S E S T S R T V A I P Y D S L
13141 - TAAATGTTTCCTCAGTGGCTTTGAGCGTTTCTGCTGCGAAAAGCTTGAGTCTCTCAGTAC - 13200
     - * M F P Q W L * A F L L R K A * V S Q Y
       K C F L S G F E R F C C E K L E S L S T
       N V S S V A L S V S A A K S L S L S V Q
13201 - AAGTGTTGGCAAGTATGTAATCGCCAGCATTAGTCCAATCACATGTTGCTATCGCATTGA - 13260
     -KCWQVCNRQH*SNHMLLSH*
       S V G K Y V I A S I S P I T C C Y R I E
       V L A S M * S P A L V Q S H V A I A L K
13261 - AGTCAGTGACATTGTCACTGCCTACACATGTGTTTTTGTATAAACCAAAAACCTGACCAT - 13320
     -SQ * H C H C L H M C F C I N Q K P D H
      V S D I V T A Y T C V F V * T K N L T I
        S V T L S L P T H V F L Y K P K T * P L
13321 - TAGCACATAATGGAAAACTAATGGGAGGCTTATGTGACTTGCAATAATAGCTCATACCTC - 13380
     - * H I M E N * W E A Y V T C N N S S Y L
       S T * W K T'N G R L M * L A I I A H T S
      A H N G K L M G G L C D L Q * * L I P P
13381 - CTAGATACAGTTGTCACATCAGTGACATCACAACCTGGGGCATTGCAAACATAGGGAT - 13440
    -L D T V V S H Q * H H N L G H C K H R D
         I Q L C H I S D I T T W G I A N I G I
       RYSCVTSVTSQPGALQT*GL
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13441 - TAACAGACAACATAATTTGTGTGATGTTGAAATGACATGGTCATAGCAGCACTTGCAAC - 13500
       Q T T L I C V M L K * H G H S S T C N
     NRQH*FV*C*NDMVIAALAT
       T D N T N L C D V E M T W S * Q H L Q H
13501 - ATAGGAATGGTCTCCTAATACAGGCACCGCAACGAAGTGAAGTCTGTGAATTGCACAATA - 13560
    -IGMVS*YRHRNEVKSVNCTI
      * E W S P N T G T A T K * S L * I A Q Y
       RNGLLIQAPQRSEVCELHNT
13561 - CACAAGCACCTACAGCCTGCAAGACTGTATGTGGTGTGTACATAGCCTCATAAAACTCAG - 13620
    -H K H L Q P A R L Y V V C T * P H K T Q
    - TSTYSLQDCMWCVHSLIKLR
       13621 - GTTCCCAGTACCGTGAGGTGTTATCATTAGTTAGCATTACGGAATACATGTCCAACATGT - 13680
    -V P S T V R C Y H * L A L R N T C P T C
    - F P V P * G V I I S * H Y G I H V Q H V
       S Q Y R E V L S L V S I T E Y M S N M W
13681 - GGCCAGTAAGCTCATCATGTAACTTTCTAATGTATTGTAAATACAAGTGAAAGACATCAG - 13740
    -GQ * A H H V T F * C I V N T S E R H Q
    - A S K L I M * L S N V L * I Q V K D I S
      P V S S S C N F L M Y C K Y K * K T S A
13741 - CATACTCCTGATTAGGATGTTTTGTAAGTGGGTAAGCATCAATAGCCAGTGACACGAACC - 13800
    - H T P D * D V L * V G K H Q * P V T R T
    - I L L I R M F C K W V S I N S Q * H E P
      Y S * L G C F V S G * A S I A S D T N L
13801 - TTTCAATCATAAGTGTACCATCTGTTTTGACAATATCATCGACAAAACAGCCTGCGCCTA - 13860
    -FQS * V Y H L F * Q Y H R Q N S L R L
    - FNHKCTICFDNIIDKTACA*
      SIISVPSVLTISSTKQPAPN
13861 - ATATTCTTGATGGATCTGGGTAAGGCAGGTACACGTAATCATCTCCTTGTTTAACTAGCA - 13920
    -I F L M D L G K A G T R N H L L V * L A
    - Y S * W I W V R Q V H V I I S L F N * H
      I L D G S G * G R Y T * S S P C L T S I
13921 - TTGTATGCTGTGAGCAAAATTCGTGAGGTCCTTTAGTAAGGTCAGTCTCAGTCCAACATT - 13980
    -LYAVSKIREVL**GQSQSNI
     C M L * A K F V R S F S K V S L S P T F
      V C C E Q N S * G P L V R S V S V Q H F
13981 - TTGCCTCAGACATGAACACATTATTTTGATAATAAAGAACTGCCTTAAAGTTCTTAATGC - 14040
    -LPQT * THYFDNKELP * SS * C
     C L R H E H I I L I I K N C L K V L N A A S D M N T L F * * * R T A L K F L M L
14041 - TAGCTACTAAACCTTGAGCCGCATAGTTACTGTTATAGCACACACGGCATCATCAGAAA - 14100
    - * L L N L E P H S Y C Y S T Q R H H Q K
     S Y * T L S R I V T V I A H N G I I R K
     ATKP*AA*LLL*HTTASSER
14101 - GAATCATCATGGAGAAATGTTTACGCAGGTAAGCGTAAAACTCATCCACGAATTCATGAT - 14160
    -ESSWRNVYAGKRKTHPRIHD
    - N H H G E M F T Q V S V K L I H E F M I
     IIMEKCLRR*A*NSSTNS*S
14161 - CAACATCCCTATTTCTATAGAGACACTCATAGAGCCTGTGTTGTAGATTGCGGACATACT - 14220
    -Q H P Y F Y R D T H R A C V V D C G H T
    - NIPISIETLIEPVL*IADIL
    - TSLFL*RHS*SLCCRLRTYL
14221 - TGTCAGCTATCTTATTACCATCAGTTGAAAGAAGTGCATTTACATTGGCTGTAACAGCTT - 14280
    -CQLSYYHQLKEVHLHWL * QL
    - V S Y L I T I S * K K C I Y I G C N S L
      SAILLPSVERSAFTLAVTA*
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14281 - GACAAATGTTAAAGACACTATTAGCATAAGCAGTTGTAGCATCACCGGATGATGTTCCAC - 14340
    - D K C * R H Y * H K Q L * H H R M M F H
    - T N V K D T I S I S S C S I T G \star C S T
       Q M L K T L L A * A V V A S P D D V P P
14341 - CTGGTTTAACATATAGTGAGCCGCCACACATGACCATCTCACTTAATACTTGCGCACACT - 14400
    -LV * HIVSRHT * PSHLILAHT
    - W F N I * * A A T H D H L T * Y L R T L
       G L T Y S E P P H M T I S L N T C A H S
14401 - CGTTAGCTAACCTGTAGAAACGGTGTGATAAGTTACAGCAAGTGTTATGTTTGCGAGCAA - 14460
    -R * L T C R N G V I S Y S K C Y V C E Q
    - V S * P V E T V * * V T A S V M F A S K
       LANL * KRCDKLQQVLCLRAR
14461 - GAACAAGAGAGGCCATTATCCTAAGCATGTTAGGCATGGCTCTGTCACATTTTGGATAAT - 14520
    -EQERPLS * A C * A W L C H I L D N
    - N K R G H Y P K H V R H G S V T F W I I
       TREAIILS MLG MALS HFG * S
14521 - CCCAACCCATAAGGTGTGGAGTTTCTACATCACTGTAAACAGTTTTTAACATATTATGCC - 14580
    -PNP * GVEFLHHCKOFLTYYA
    - P T H K V W S F Y I T V N S F * H I M P
      Q P I R C G V S T S L * T V F N I L C O
14581 - AGCCACCGTAAAACTTGCTTGTTCCAATTACCACAGTAGCTCCTCTAGTGGCGGCTATTG - 14640
    -SHRKTCLFQLPQ*LL*WRLL
    - A T V K L A C S N Y H S S S S G G Y *
      PP * N L L V P I T T V A P L V A A I D
14641 - ACTTCAATAATTTCTGATGAAACTGTCTATTTGTCATAGTACTACAGATAGAGACACCAG - 14700
    -TSIISDETVYLS*YYR*RHQ
    - L Q * F L M K L S I C H S T T D R D T S
      FNNF**NCLFVIVLQIETPA
14701 - CTACGGTGCGAGCTCTATTCTTTGCACTAATGGCATACTTAAGATTCATTTGAGTTATAG - 14760
    -LRCELYSLH * WHT * DSFEL *
     Y G A S S I L C T N G I L K I H L S Y S
      T V R A L F F A L M A Y L R F I * V I V
14761 - TAGGGATGACATTACGCTTAGTATACGCGAAAAGTGCATCTTGATCCTCATAACTCATTG - 14820
    - * G * H Y A * Y T R K V H L D P H N S L
    - R D D I T L S I R E K C I L I L I T H *
      G M T L R L V Y A K S A S * S S * L I E
14821 - AGTCATAATAAAGTCTAGCCTTACCCCATTTATTAAATGGGAAACCAGCTGATTTATCCA - 14880
    -SHNKV*PYPIY*MGNQLIYP
-VIIKSSLTPFIKWETS*FIQ
      S * * S L A L P H L L N G K P A D L S R
14881 - GATTGTTAACGATTACTTGGTTGGCATTAATACAGCCACCATCGTAACAATCAAAGTATT - 14940
    -DC * RLLGWH * YSHHRNNQSI
      I V N D Y L V G I N T A T I V T I K V F
      L L T I T W L A L I Q P P S * Q S K Y L
14941 - TATCAACAACTTCAACTACGAATAGGAGTTGTCTGATATCACACATTGTTGGCAGATTAT - 15000
    -YQQLQLRIGVV*YHTLLADY
      I N N F N Y E * E L S D I T H C W Q I I
      STTSTTNRSCLISHIVGRL*
15001 - AACGATAATAGTCATAATCACTGATAGCAGCGTTGCCATCCTGAGCAAAGAAGAAGTGTT - 15060
    -NDNSHNH**QRCHPEQRRSV
      TIIVIIT D S S V A I L S K E E V F
     R * * S * S L I A A L P S * A K K C F
15061 - TTAGTTCAACAGAACTTCCTTCCTTAAAGAAACCTTTAGACACAGCAAAGTCATAAAAGT - 15120
    -LVQQNFLP*RNL*TQQSHKS
      * FNRTSFLKETFRHSKVIKV
      S S T E L P S L K K P L D T A K S * K S
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\hbox{-L } Y \hbox{ * } N \hbox{ } Y \hbox{ } R \hbox{ } V \hbox{ * } Q \hbox{ } F \hbox{ } E \hbox{ } K \hbox{ } Q \hbox{ } H \hbox{ } C \hbox{ } L \hbox{ } L \hbox{ } V \hbox{ } Q \hbox{ } L
     FIKITGFDSLKSNIVC * CSY
       L L K L P G L T V * K A T L F V S A A T
-LKSM * CVYLAINCQKLHA * L
      * K A C S A F I * Q * I A R S C M H S W
       E K H V V R L S S N K L P E A A C I A G
15241 - GATCAGCAGCATACACTAAAAGTTCCTTGAAACTGAGACGCGAGCTATGTAAGTTTACAT - 15300
    -DQQHTLKVP*N*DASYVSLH
    - I S S I H * K F L E T E T R A M * V Y I
       S A A Y T K S S L K L R R E L C K F T S
15301 - CCTGATTATGTACGACTCCTAACTCACGAAAATGGTATCCAGTTGAAACAACAAAAGGAA - 15360
    - P D Y V R L L T H E N G I Q L K O O K E
    - L I M Y D S * L T K M V S S * N N K R N
       * L C T T P N S R K W Y P V E T T K G T
15361 - CACCATCTACAAATATTTTCTTACTAGTGGTCCAAAACTTGTAGGTGGAAACACAGTAG - 15420
    -H H L Q I F F L L V V Q N L * V E T Q *
    - TIYKYFSY * WSKTCRWKHSR
       P S T N I F L T S G P K L V G G N T V E
15421 - AAAATAACACATTAAAGTTTGCACAATGAAGGATACACCTATCATCCAAACAGTTAATAC - 15480
    - K I T H * S L H N E G Y T Y H P N S * Y
    - K * H I K V C T M K D T P I I Q T V N T
      NNTLKFAQ * RIHLSSKQLIQ
15481 - AATTGGGATGGTATGTCTGGTCCCAATATTTAAAATAACGGTCGAAGAGACAAAGTCTCT - 15540
    -NWDGMSGPNI*NNGRRDKVS
     IGMVCLVPIFKITVEETKSL
      LGWYVWSQYLK*RSKRQSLS
15541 - CTTCCGTAAAATCATATTCAGCAAATCCCACTTAATAAGTGGTTTTGCGAGATCAGCAT - 15600
    - L P * N H I S A N P T * * V V L R D Q H
- F R K I I F Q Q I P L N K W F C E I S I
      S V K S Y F S K S H L I S G F A R S A S
15601 - CCATATGGGACTCAGCCAATGCCCTAGTCAAAGTGAGGATGGGCATCAGCAATGAGT - 15660
    - P Y G T Q Q P M P * S K * G W A S A M S
     H M G L S S Q C P S Q S E D G H Q Q * V
      I W D S A A N A L V K V R M G I S N E *
15661 - AATATGAATCCACAATAGGAACTCCGCAGCCTGGTGCTACTTGTACGAAATCACCGAAAT - 15720
    -N M N P Q * E L R S L V L L V R N H R N
     I * I H N R N S A A W C Y L Y E I T E I
      Y E S T I G T P Q P G A T C T K S P K S
15721 - CGTACCAGTTCCCATTAAGATCCTGATTATCTAATGTCAGTACGCCTACAATGCCTGCAT - 15780
    -RTSSH * DPDYLMSVRLQCLH
      V P V P I K I L I I * C Q Y A Y N A C I
       Y Q F P L R S * L S N V S T P T M P A S
15781 - CACGCATAGCATCGCAGAATTGTACAGTCTTTAATAATGATTGGCGTACACGCTCACCTA - 15840
    -HA*HRRIVQSLIMIGVHAHL
      THSIAELYSL***LAYTLT*
      R I A S Q N C T V F N N D W R T R S P K
15841 - AGTTAGCATATACGCGTAAGATGTCAGGATTCTCTACGAAGTCATACCAATCCTTCTTAT - 15900
    -S * H I R V R C Q D S L R S H T N P S Y
      V S I Y A * D V R I L Y E V I P I L L I
     LAYTRKMSGFSTKSYQSFLL
15901 - TGAAATAATCATCACAGCAATTGTATGTGACGAGTATTTCTTTTAATGTATCACAAT - 15960
    - * N N H H H S N C M * R V F L L M Y H N
     EIIIITAIVCDEYFF * CITI
      K * S S S Q Q L Y V T S I S F N V S Q L
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-YPHQNDVEHRLNQPLCI*LD
      TLIKMT * SID * ISHCVFS * T
           S K * R R A * T K S A I V Y L V R R
16021 - GCTGACGTGATATATGTGGTACCATGTCACCATCTAAACTTGAAAAAGTCATGGA - 16080
    -ADVIYVVPCHHLL*T*KSHG
    - L T * Y M W Y H V T I Y S K L E K V M D
       * R D I C G T M S P S T L N L K K S W T
16081 - CAGCAACCGCTGGACAATCTTTAACCAAGTTATAAATAGTCTCTTCATGTTGGTAGTTAG - 16140
    - Q Q P L D N L * P S Y K * S L H V G S *
    - S N R W T I F N Q V I N S L F M L V V R
       A T A G Q S L T K L * I V S S C W * L D
16141 - ACATAGTATGCCTCTTAACTACAAAGTAAGAGTCTAATAAATTGCCTTCCTCATCCTTCT - 16200
    -T * Y A S * L Q S K S L I N C L P H P S
    - H S M P L N Y K V R V * * I A F L I L L
       I V C L L T T K * E S N K L P S S F S
16201 - CCTGGAAGCGACAGCAATTAGTTTTTTAGGAACTTTTGCAAAACCAGCACTTTTTTCGTTGT - 16260
    -PGSDSN*FLGTLQNOHFFRC
    - L E A T A I S F * E L C K T S T F F V V
       W K R Q Q L V F R N F A K P A L F S L *
16261 - AAATATCAAAAGCCCTGTAGACGACATCAGTACTAGTGCCTGTGCCGCACGGTGTAAGAC - 16320
    -KYQKPCRRHQY*CLCRTV*D
    - N I K S P V D D I S T S A C A A R C K T
       I S K A L * T T S V L V P V P H G V R R
16321 - GGGCTGCACTTACACCGCAAACCCGTTTAAAAACGTTGATGCATCCGCAGACTGCATCAA - 16380
    -GLHLHRKPV * KR * CIRRLHQ
    - G C T Y T A N P F K N V D A S A D C I K
      A A L T P Q T R L K T L M H P Q T A S R
16381 - GGGTTCGCGGAGTTGGTCACAACTACAGCCATAACCTTTCCACATTCCGCAGACGGTACA - 16440
    -GFAELVTTTAITFPHSADGT
     G S R S W S Q L Q P * P F H I P Q T V Q
      V R G V G H N Y S H N L S T F R R R Y R
-DCVSKCKTHWVISTSGRYLD
      T V F L S V K P T G S L A Q V V G I W T
      L C F * V * N P L G H * H K W * V F G R
16501 - GTACTTACCTTTCAAGTCACAGAATCCTTTAGGATTTGGATGGTCAATGTGGCATCTACA - 16560
    -VLTFQVTESFRIWMVNVAST
      Y L P F K S Q N P L G F G W S M W H L Q
       TYLSSHRIL*DLDGQCGIYN
16561 - ATACAGACAACATGAAGCACCACCAAAGGACTCTTGGTCCATGTTAGCTTCTGGTGTTAC - 16620
    -I Q T T * S T T K G L L V H V S F W C Y
      T D N M K H H Q R T L G P C * L L V L O
16621 - AGTAATTGCCTGTCCTGTACCAGTGTGTGTACACAACATCTTCACACAGTTGGTGATTGG - 16680
    -SNCLSCTSVCTQHLHTVGDW
-VIACPVPVCVHNIFTQLVIG
       * L P V L Y Q C V Y T T S S H S W * L V
16681 - TTGTCCTCCACTTGCTAGGTAATCCTTATATGCTTTAGCAGGGTCTACTGCAAAAGCACA - 16740
    -LSSTC * VILICFSRVYCKST
      C P P L A R * S L Y A L A G S T A K A Q
      V L H L L G N P Y M L * Q G L L Q K H R
16741 - GAAGGAAAGCACAGTTGAATTGGCAGGTACTTCTGTAGCATTTCCAGCCTGAAGACGTAC - 16800
    -EGKHS*IGRYFCSISSLKTY
       \texttt{K} \ \texttt{E} \ \texttt{S} \ \texttt{T} \ \texttt{V} \ \texttt{E} \ \texttt{L} \ \texttt{A} \ \texttt{G} \ \texttt{T} \ \texttt{S} \ \texttt{V} \ \texttt{A} \ \texttt{F} \ \texttt{P} \ \texttt{A} \ \star \ \texttt{R} \ \texttt{T} 
      R K A Q L N W Q V L L * H F Q P E D V L
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16801 - TGTAGCAGCTAAACTGCCCAGCACCATACCTCTATTTAGGTTGTTTAAGCCTTTGATGAA - 16860
     -CSS * TAQHHTSI * VV * AFDE
      V A A K L P S T I P L F R L F K P L M K
* Q L N C P A P Y L Y L G C L S L * * S
16861 - GTACAAGTATTTCACTTTAGGCCCTTTTGGTGTGTCTGTAACAAACCTACAAGGTGGTTC - 16920
     -VQVFHFRPFWCVCNKPTRWF
      Y K Y F T L G P F G V S V T N L Q G G S
            ISL*ALLVCL*QTYKVVP
16921 - CAGTTCTGTGTAAATTGTACCTGTACCATCACTCTTAGGGAATCTAGCCCATTTGAGATC - 16980
     -QFCVNCTCTITLRESSPFEI
     - S S V * I V P V P S L L G N L A H L R S
       V L C K L Y L Y H H S * G I * P I * D L
16981 - TTGGTGGTCTGATAGTAATGCCAGCACAAACCTACCTCCCTTCGAATTGTTATAGTAGGC - 17040
     - L V V * * * C Q H K P T S L R I V I V G
     - W W S D S N A S T N L P P F E L L * * A
       G G L I V M P A Q T Y L P S N C Y S R O
17041 - AAGTGCATTGTCATCAGTACAAGCTGTTTGTGTGGTACCAGCCGCACAGGACATCTGTCG - 17100
     -KCIVISTSCLCGTSRTGHLS
     - S A L S S V Q A V C V V P A A Q D I C R
       V H C H Q Y K L F V W Y Q P H R T S V V
17101 - TAGTGCTACTGGACTCAGTTCATTATTCTGTAGTTTAACAGCTGAGTTGGCTCTTAGAGC - 17160
     - * C Y W T Q F I I L * F N S * V G S * S
     - S A T G L S S L F C S L T A E L A L R A
       V L L D S V H Y S V V * Q L S W L L E L
17161 - TGTAACAATAAGAGGCCAAGCCAAATTTGGTGAATTGTCCATGTTAATTTCACTAAGTTG - 17220
     -CNNKRPSQIW*IVHVNFTKL
     - V T I R G Q A K F G E L S M L I S L S *
      * Q * E A K P N L V N C P C * F H * V E
17221 - AACAATCTTGCTATCCGCATCAACAACTTGCTGGATTTCCCAGAGTGCAGATGCATATGT - 17280
     -N N L A I R I N N L L D F P E C R C I C
     - TILLSASTTCWISQSADAYV
       Q S C Y P H Q Q L A G F P R V Q M H M *
17281 - AAAGGTGTTACCATCACAAGTGTTCTTGTAGGTACCATAATCAGGGACAACAACCATGAG - 17340
     -K G V T I T S V L V G T I I R D N N H E
     K V L P S Q V F L * V P * S G T T T M S
      RCYHHKCSCRYHNQGQP*V
17341 - TTTGGCTGCTGTAGTCAATGGTATGATGTTGAGTGGAACACCATCACGCGCATTGTT - 17400
    -FGCCSQWYDVEWNTTITRIV
     LAAVVNGMMLSGTQPSRALL
      W L L * S M V * C * V E H N H H A H C *
17401 - GATAATGTTGTTAAGTGCATCATTATCAAGCTTCCTAAGCATAGTGAAGAGCATTGTTTG - 17460
    -DNVVKCIIIKLPKHSEEHCL
     I M L L S A S L S S F L S I V K S I V C
* C C * V H H Y Q A S * A * * R A L F A
17461 - CATAGCACTAGTTACTTTTGCCCTCTTGTCCTCAGATCTTGCCTGTTTTGTACATTTGGGT - 17520
    - H S T S Y F C P L V L R S C L F V H L G
- I A L V T F A L L S S D L A C L Y I W V
       * H * L L P S C P Q I L P V C T F G S
17521 - CATAGCCTGATCTTCCCAACTTGCGTTGCATGGCAGCATCACGGTCAAACTC - 17580
    - H S L I C H L F Q L A L H G S I T V K L
- I A * S A I F S N L R C M A A S R S N S
- * P D L P S F P T C V A W Q H H G Q T Q
17581 - AGATTTAGCCACATTCAAAGATTTCTTTAACTTTTTGAGAACGACTTCAGAATCACCATT - 17640
    -RFSHIQRFL*LFENDFRITI
-DLATFKDFFNFLRTTSESPL
         * P H S K I S L T F * E R L Q N H H *
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17641 - AGCTACAGCCTGCTCATAGGCCTCCTGGGCAGTGGCATAAGCGGCATATGATGGTAAAGA - 17700
     -SYSLLIGLLGSGISGI * W * R
      ATACS * ASWAVA * AAYDGKE
       L Q P A H R P P G Q W H K R H M M V K N
17701 - ACTAAATTCTGAAGCAATAGCCTGAAGAGTAGCACGGTTATCGAGCATTTCCTCGCACAA - 17760
     -TKF * S N S L K S S T V I E H F L A Q
      L N S E A I A * R V A R L S S I S S H N
         I L K Q * P E E * H G Y R A F P R T T
17761 - CCTATTAATGTCTACAGCACCCTGCATGGATAGCAAAACAGACAAAAGAGAAAACCATCTT - 17820
     -PINVYSTLHG * QNRQKRNHL
     - L L M S T A P C M D S K T D K R E T I F
       Y * C L Q H P A W I A K Q T K E K P S S
17821 - CTCGAAAGCTTCAGTTGTGTCTTTTGCAAGAAGAATATCATTGTGGAGTTGTACACATTG - 17880
     -LESFSCVFCKKNIIVELYTL
     - S K A S V V S F A R R I S L W S C T H C
      RKLQLCLLQEEYHCGVVHIV
17881 - TGCCCACAATTTAGAAGATGACTCTACTCTAAGTTGTTGAAGAACCGAGAGCAGTACCAC - 17940
     -CPQFRR*LYSKLLKNREQYH
     - A H N L E D D S T L S C * R T E S S T T
       PTI*KMTLL*VVEEPRAVPQ
17941 - AGATGTGCACTTTACGTCAGACATTTTAGACTGTACAGTAGCAACCTTGATACATGGTTT - 18000
     -R C A L Y V R H F R L Y S S N L D T W F
     - D V H F T S D I L D C T V A T L I H G L
      MCTLRQTF*TVQ*QP*YMVY
18001 - ACCTCCAATACCCAACAACTTAATGTTAAGCTTGAAAGCATCAATACTACTCTTAGGAGG - 18060
    -TSNTQQLNVKLESINTTLRR
    - P P I P N N L M L S L K A S I L L G G
       L Q Y P T T * C * A * K H Q Y Y S * E A
18061 - CAAAAGCCCCTGGGAGTTCATATACCTAAATTCTTGTGTAGAGACCAAGTAGTCATAAAC - 18120
    -Q K P L G V H I P K F L C R D Q V V I N
    - KSPWEFIYLNSCVETK*S*T
       K A P G S S Y T * I L V * R P S S H K H
18121 - ACCAAGAGTAAGCCTGAAGTAACGGTTGAGTAAACAGAAAAGGCCCAAAGTAGCAGCAGCA - 18180
    -TKSKPEVTVE * TEKAKVAAA
      PRVSLK*RLSKQKRPK*QQQ
       QE * A * S N G * V N R K G Q S S S S N
18181 - ACAATAGCCTAAGAAACAATAAACAAGCATGATACACTGTAAGGTGTTGCCAGTAATAAA - 18240
    -TIA*ETINKHDTL*GVASNK
      Q * P K K Q * T S M I H C K V L P V I N
N S L R N N K Q A * Y T V R C C Q * * I
18241 - TAACAATGGGTAATACTCAACACACACACACACATATAGCTCTAGCTAAAAACATGATAGT - 18300
    - * Q W V I L N T H K H Y S S S * K H D S
     N N G * Y S T H T N T I A L A K N M I V
T M G N T Q H T Q T L * L * L K T * * S
18301 - CGTAACGACACCAGAATAGTTAGAGGTTACAGAAATAACTAAGGCCCACATGGAAATAGC - 18360
    -RNDTRIVRGYRNN * GPHGNS
      V T T P E * L E V T E I T K A H M E I A
       * R H Q N S * R L Q K * L R P T W K * L
18361 - TTGATCTAAAGCATTACCATAGTAGACTTTGTAAACAAGTGTAATGACATTCATCAGTGT - 18420
    -LI * SITIVDF V N K C N D I H Q C
       S K A L P * * T L * T S V M T F I S V
D L K H Y H S R L C K Q V * * H S S V S
18421 - CCAAACACGTCTAGCAGCATCATCATAAACAGTGCGAGCTGTCATGAGAATAAGCAAAAC - 18480
    - P N T S S S I I I N S A S C H E N K Q N
- Q T R L A A S S * T V R A V M R I S K T
       KHV * Q H H H K Q C E L S * E * A K L
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18481 - TAAAGCTGAAGCATACATAACACAATCCTTAAGCCTATAACCAGACAAGCTAGTGTCAGC - 18540
     - * S * S I H N T·I L K P I T R Q A S V S
     - KAEAYITQSLSL * PD K L V S A
       K L K H T * H N P * A Y N Q T S * C Q P
18541 - CAATTCAAGCCATGTCATGATACGCATCACCCAGCTAGCAGGCATGTAGACCATATTAAA - 18600
     -Q F K P C H D T H H P A S R H V D H I K
     - N S S H V M I R I T Q L A G M * T I L K
       I Q A M S * Y A S P S * Q A C R P Y * S
18601 - GTAAGCAACTGTTGCAAGAAGAGTAACAGAACAAGCACAAGAATGCGTGCTTATGCTT - 18660
    -VSNCCKRR*QKQAQECVLML
      * A T V A R E G N R N K H K N A C L C L
       K Q L L Q E K V T E T S T R M R A Y A *
18661 - AACAAGCAGCATAGCACATGCAGCAATTGCCATAATACCAAGAGTAAATGGCAAGAAAGC - 18720
    -N K Q H S T C S N C H N T K S K W Q E S
    - T S S I A H A A I A I I P R V N G K K A
       Q A A * H M Q Q L P * Y Q E * M A R K H
18721 - ATTCTCGTAAACAAGAAAAACAGTGACCACTGTGTACTTTGAACAAGAATCAATAGTGA - 18780
    -I L V N K E K Q * P L C T L N K N O * *
    - F S * T K K N S D H C V L * T R I N S D
       S R K Q R K T V T T V Y F E Q E S I V M
18781 - TGTCAAGAAAGTTAAAAGCATCCAATGATGAGGGCCCTTAACAATTTTCTTGAACTTACC - 18840
    -CQES*KHPMMSALNNFLELT
    - V K K V K S I Q * * V P L T I F L N L P
       S R K L K A S N D E C P * Q F S * T Y L
18841 - TTGGAAGGTAACACCAGAGCATTGTCTAACAACATCAAATGGTGTAAACTCATCTTCTAA - 18900
    -LEGNTRALSNNIKWCKLIF *
    - W K V T P E H C L T T S N G V N S S S K
       G R * H Q S I V * Q H Q M V * T H L L K
18901 - AATAGTGCTACCAAGGATAGTACGACCATTCATACCATTCTGCAGCAGCTCTTTCAAAGC - 18960
    -NSATKDSTTIHTILQQLFQS
     I V L P R I V R P F I P F C S S S F K A
       * C Y Q G * Y D H S Y H S A A A L S K Q
18961 - AGCACACATATCTAAGACGGCAATTCCTGTTTGAGCAGAAAGAGGTCCCAATATGTCAAC - 19020
    -STHI*DGNSCLSRKRSQYVN
     A H I S K T A I P V * A E R G P N M S T
      H T Y L R R Q F L F E Q K E V P I C O H
19021 - ATGATCTTGTGTCAAAGGTTCATAGTTGTACTTCATTGCCACAAGGTTAAAGTCATTCAA - 19080
    - M I L C Q R F I V V L H C H K V K V I Q
      * S C V K G S * L Y F I A T R L K S F K
      D L V S K V H S C T S L P Q G * S H S K
19081 - AGTAGTGGTGAATCTATTAAGAAACCACCTATCACCATTGATAACAGCAGCATACAGCCA - 19140
    -SSGESIKKPPITIDNSSIQP
     V V V N L L R N H L S P L I T A A Y S H
      * W * I Y * E T T Y H H * * Q Q H T A M
-CQNI * CYGCVCTCS LCS LS V
      AKTFNVMVVSVPAACAVCLS
      P K H L M L W L C L Y L Q P V Q F V C Q
19201 - AACAAATGGACCATAGAATTTACCTTCTAAGTCAGTACCAGCGTGTACTCCTGTTGGAAG - 19260
    -NKWTIEFTF * VSTSVYSCWK
      Q M D H R I Y L L S Q Y Q R V L L E A
19261 - CTCCATATGATGCATATAGCAGAAAGACACGCAATCATAATCAATGTTAAAACCAACACT - 19320
    - L H M M H I A E R H A I I I N V K T N T
- S I * C I * Q K D T Q S * S M L K P T L
      P Y D A Y S R K T R N H N Q C * N Q H Y
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19321 - ACCACATGATCCATTAAGGAAAGAACCTTTAATGGTATGATTAGGTCTCATGGCACACTG - 19380
    -TT * SIKERTFNGMIRSHGTL
    - P H D P L R K E P L M V * L G L M A H *
      H M I H * G K N L * W Y D * V S W H T D
19381 - ATAAACACCAGATGGTGAACCATTGTAGCATGCTAGAACTGAAAATGTTTGACCAGGTTG - 19440
    -INTRW*TIVAC*N*KCLTRL
       T P D G E P L * H A R T E N V * P G W
      K H Q M V N H C S M L E L K M F D Q V G
19441 - GATACGGACAAATTTATACTTGGGTGTCTTAGGGTTAGAAGTATCAACTTTAAGCCTAAG - 19500
    -DTDKFILGCLRVRSINFKPK
     I R T N L Y L G V L G L E V S T L S L S
      Y G Q I Y T W V S * G * K Y Q L * A * A
19501 - CAGACAATTTTGCATAGAATGGCCAATAACACGAAGTTGAACATTGCCAGCCTGAACAAG - 19560
    -QTILHRMANNTKLNIASLNK
    - R Q F C I E W P I T R S * T L P A * T R
      DNFA * NGQ * HEVEHCQPEQE
19561 - AAAGCTATGGTTGGATTTGCGAATGAGCAGATCTTCATAGTTAGGATTAAGCATGTCTTC - 19620
    -KAMVGFANEQIFIVRIKHVF
    - K L W L D L R M S R S S * L G L S M S S
      S Y G W I C E * A D L H S * D * A C L L
19621 - TGCTGTGCAAATGACATGTCTTGGACAGTATACTGTGTCATCCAACCACAATCCATTAAG - 19680
    -CCANDMSWTVYCVIQPQSIK
    - A V Q M T C L G Q Y T V S S N H N P L R
      LCK * H V L D S I L C H P T T I H * E
19681 - AGTTGTAGTTCCACAGGTTACTTGTACCATGCACCCTTCAACTTTGCCTGACGGGAATGC - 19740
    -SCSSTGYLYHAPFNFA*REC
    - V V V P Q V T C T M H P S T L P D G N A
     L * F H R L L V P C T L Q L C L T G M P
-HFPKTTLQNSRSD*CLWWLV
    - I F L K P L C R T A E V I D V C G G W *
      FS * N H S A E Q Q K * L M S V V V G R
19801 - GAGAACATCAGCACCTGAGTTGCTAAAGTCATTTAGAGCCTTTGCTAAGTGGCAGCAAGC - 19860
    -ENIST * VAKVI * SLC * VAAS
     R T S A P E L L K S F R A F A K W Q Q A
      EHQHLSC*SHLEPLLSGSKL
19861 - TGCTTCACGATAGCTGGTAGTATCTAAGGCTCCACTGAAATACTTGTACTTGTTATATAG - 19920
    -CFTIAGSI * GSTEILVLVI *
     ASR*LVVSKAPLKYLYLLYR
     L H D S W * Y L R L H * N T C T C Y I E
19921 - AGCAAGATACCTGTTATACTGTGTAAGTGGCAACAGTGTCTCGCTACGCAATTTTAGGTA - 19980
    -SKIPVILCKWQQCLATQF*V
     ARYLLYCVSGNSVSLRNFRY
     Q D T C Y T V * V A T V S R Y A I L G T
19981 - CATTTCCTTGTTGAGCAAAAAGGTACACAAAGCAGCCTCCTCGAAGGTACTAAATGTAAC - 20040
    - H F L V E Q K G T Q S S L L E G T K C N
     I S L L S K K V H K A A S S K V L N V T
      FPC*AKRYTKQPPRRY*M*L
20041 - TCCATTAAACATGACTCTTTTCCTAAGATAGTTGTTAAAGAACCAATGGCAGTGCTTCAG - 20100
    -SIKH D S F P K I V V K E P M A V L Q
     P L N M T L F L R * L L K N Q W Q C F R
      H * T * L F S * D S C * R T N G S A S E
20101 - AGAAATACAGAATACATAGATTGCTGTTATCCAAAAAGGCACAATAGGAGAAAACATGGC - 20160
    -RNTEYIDCCYPKRHNRRKHG
     EIQNT*IAVIQKGTIGENMA
     KYRIHRLLSKKAQ * EKTW Q
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20161 - AAACCATTGAAGGTGAGCCAAGAATGAAACATCATTGGTGAAATAGAATGTCAAGTACAA - 20220
    -KPLKVSQE*NIIGEIECQVQ
    - N H * R * A K N E T S L V K * N V K Y K
       T I E G E P R M K H H W * N R M S S T S
-V K D * V D S R Q K A V S W Y Q T E Y S
      * K T E * T P G R K L * A G T R Q S I V
       K R L S R L P A E S C K L V P D R V * *
20281 - GAAAGACATCAAAAACAAAAGTGCATTAGCAGCAACAACATGGTTGTACTCACCAAAAAC - 20340
    -ERHQKQKCISSNNMVVLTKN
    - K D I K N K S A L A A T T W L Y S P K T
       KTSKTKVH*QQHGCTHQKH
20341 - ACGTCTGAATTTCATAAAGTAGTAGGCAGCACAAGTCACCAATATGGCAATAATACCACC - 20400
    -TSEFHKVVGSTSHQYGNNTT
    - R L N F I K * * A A Q V T N M A I I P P
       V * I S * S S R Q H K S P I W Q * Y H Q
20401 - AGCCACTACTGAAGCACACATCTAAAGCACCCACAGGTTGCACAAGAGGAGTAAAGAT - 20460
    -SHY * SRHI * STHRLHKRSKD
    - A T T E A D T S K A P T G C T R G V K M
      P L L K Q T H L K H P Q V A Q E E * R C
20461 - GTTAGCTATGAGATTCATCGCATCAACACCACAGAAAACTCCTGATAGAGCTCTGTAATG - 20520
    - V S Y E I H R I N T T E N S * * S S V M
    - L A M R F I A S T P Q K T P D R A L * C
      * L * D S S H Q H H R K L L I E L C N A
20521 - CTCATTATTAAGAACCCATCTACCACTGGTAGATAGGCAAATACCTACTTCTGACCTTTC - 20580
    -LIIKNPSTTGR*ANTYF*PF
    - S L L R T H L P L V D R Q I P T S D L S
      HY*EPIYHW*IGKYLLTFR
20581 - GCATGTACCATGTCTACAGTACTCAGCATCAAAAGTTGTTACTACTCTAACAGAACCCTC - 20640
    - A C T M S T V L S I K S C Y Y S N R T L
     HVPCLQYSASKVVTTLTEPS
       \begin{smallmatrix} M & Y & H & V & Y & S & T & Q & H & Q & K & L & L & L & L & & Q & N & P & P \\ \end{smallmatrix} 
20641 - CAGGTAAGTGTTAGGAAACTGTATGATGGAACCATCCATAAGCACATAACGAGTGTCTGG - 20700
    -Q V S V R K L Y D G T I H K H I T S V W
     R * V L G N C M M E P S I S T * R V S G
      G K C * E T V * W N H P * A H N E C L D
20701 - ACGAAGCTCACTATAAGAAATAGAACCCTCTAGCAAATTAGTGTCATAACAATATGGCAC - 20760
    -TKLTIRNRTL*QISVITIWH
-RSSL*EIEPSSKLVS*QYGT
     EAHYKK*NPLAN*CHNNMAQ
20761 - AGGTTTGCCCATAGCATCCTTAAAAATTGTACACTCAGCAGCAAGAACGCAAGCAGAGGT - 20820
    -RFAHSILKNCTLSSKNASRG
     G L P I A S L K I V H S A A R T Q A E V
      V C P * H P * K L Y T Q Q Q E R K Q R *
20821 - AGCAAAATCACTATACTCAATGAGTTTGGAAGGTGTGTAGCAAATGTTGCCAACAGCACT - 20880
    -SKITILNEFGRCVANVANST
     QNHYTQ*VWKVCSKCCQQH*
-KNTR * KMQEVTIDCSQHSTR
       \begin{smallmatrix} K & T & R & G & R & K & C & K & K & S & P & L & I & A & L & S & T & V & P & G \\ \end{smallmatrix} 
      KHEVENARSHH*LLSAQYPV
20941 - TAAGCCAGGCACTATGAAACCAATCTCTCTTGTAATGATAGCAGCTACTACAGGGCAGCT - 21000
    · * A R H Y E T N L S C N D S S Y Y R A A
     K P G T M K P I S L V M I A A T T G Q L
      S Q A L * N Q S L L * * * Q L L Q G S F
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21001 - TTTGTCATTTTGTATGAACCACCACGCTGGCTAAACCATGCGTCAAAACCAGCATGTTT - 21060
    -FVIFV * TTTLAKPCVKTSMF
    - L S F L Y E P P R W L N H A S K P A C L - C H F C M N H H A G * T M R Q N Q H V Y
21061 - ATTTGCAAAACAATCATCAGTAGAAATGATGTCACGAGTGACACCATCCTGAATGGCTTT - 21120
    -I C K T I I S R N D V T S D T I L N G F
    - F A K Q S S V E M M S R V T P S * M A L
      L Q N N H Q * K * C H E * H H P E W L C
- V T N D F I C V T I M D * Q C M Y W H N
      * P M I S F V * P S W I D N V C T G I T
       N Q * F H L C N H H G L T M Y V L A * R
21181 - GATATAACAAACCAATGCAGCAAGAACGCACAATAATGTGGCCTTAAGCATAAGTTTAAA - 21240
    -DITNQCSKNAQ*CGLKHKFK
    - I * Q T N A A R T H N N V A L S I S L K
      Y N K P M Q Q E R T I M W P * A * V * N
21241 - ACAAGTACTAACAATCTTACCACCCTTGAGTGAGATTTTAGTAGTATTATGACATTGACAAC - 21300
    -TSTNNLTTLE * DFSSYDIDN
    - Q V L T I L P P L S E I L V V M T L T T
       K Y * Q S Y H P * V R F * * L * H * Q P
21301 - CTGTCTAGTTGTAGCACAAGTTAGTGTAAAAGGTATGTTGTTCTTCTTGGCAGCAGTACG - 21360
    -LSSCSTS*CKRYVVLLGSST
     C L V V A Q V S V K G M L F F L A A V R
       V * L * H K L V * K V C C S S W Q Q Y E
21361 - AATTTGTTTACGCAGCTGTTCAGATAAAGACATGTAGTCTTTTACATTCCAGATGAGTGA - 21420
    -NLFTQLFR * RHVVFYIPDE *
    - I C L R S C S D K D M * S F T F Q M S E
      F V Y A A V Q I K T C S L L H S R * V K
21421 - AACATTGTGACTTTTTGCTACTTGGGCATTGATATGCCTTGCATTACAGTCAATACATGC - 21480
    -NIVTFCYLGIDMPCITVNTC
     TL*LFATWALICLALQSIHA
      HCDFLLLGH*YALHYSQYMR
21481 - GCCAAGATCTCTGGGCGTCATGTTTTCAACCTTATTATAGGTGAGCATGAAATTGTTACA - 21540
    - A K I S G R H V F N L I I G E H E I V T
      PRSLGVMFSTLL*VSMKLLQ
      Q D L W A S C F Q P Y Y R * A * N C Y N
21541 - ACTGTCACCTGTCACTTCTAAGTCAGAGTGATGTGAAAGTTTGAGACATTCAATAACATC - 21600
    -TVTCHF*VRVM*KFETFNNI
-LSPVTSKSE*CESLRHSITS
      C H L S L L S Q S D V K V * D I Q * H P
21601 - CTTTGTGTCAACATCGGTATCAACAACACCTTGTCGGGCAGCTGACACGAATGTAGAAAG - 21660
    L C Q H R Y Q Q H L V G Q L T R M * K G
21661 - GACACCATCTAAAGCTACACCCTTTGCTAACTCGCTGTGAGCTGTAGCAACAAGTGCCTT - 21720
    -DTI * SYTLC * LAVSCSNKCL
     T P S K A T P F A N S L * A V A T S A L
      H H L K L H P L L T R C E L * Q Q V P *
21721 - AAGTTTTTCCATAGGAACACTAAAAGTTGCTGAAAAGGTGTCGACATAAGCATCAAACAT - 21780
    -KFFHRNTKSC * KGVDISIKH
      S F S I G T L K V A E K V S T * A S N I
      V F P * E H * K L L K R C R H K H Q T S
21781 - CTTAACGGAAACTTCAGTACTATCTCCAACGTTTGATACAAGAGCTTGGTCAAGCAACAG - 21840
    -L N G N F S T I S N V * Y K S L V K Q Q
      LTETSVLSPTFDTRAWSSNR
      * R K L Q Y Y L Q R L I Q E L G Q A T E
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21841 - AATAGGTTGGCACATCAGCTGACTGTAGTACACAGAAGCAGACTTAGAAGCAGACTCGTC - 21900
     -N R L A H Q L T V V H R S R L R S R L V
     - I G W H I S * L * Y T E A D L E A D S S
        * V G T S A D C S T Q K Q T * K Q T R R
21901 - GCATTTGGACTTGCCATCAAAAACTATGACATTAATAGGCAGTGAACCTTTAGTGTTGTT - 21960
     -AFGLAIKNYDINRQ*TFSVV
     - H L D L P S K T M T L I G S E P L V L L
        I W T C H Q K L * H * * A V N L * C C *
21961 - AGCTCTCAAATTGTCTAAATTGACAAAATGGGAGAGCGGATGTCTCTCATAGGTCTTTTG - 22020
     -SSQIV * I D K M G E R M S L I G L L
     - A L K L S K L T K W E S G C L S * V F *
       L S N C L N * Q N G R A D V S H R S F D
22021 - ACCAGCCTTGTCAAAGTAGAGGTGAAGCGCGCCATTTTTCACAGCAACACTATCAACAAT - 22080
     -TSLVKVEVKRAIFHSNTINN
     - PALSK * R * SAPFFTATLSTI
       Q P C Q S R G E A R H F S Q Q H Y Q Q Y
22081 - ATACGATGACTGGTCAGTAGGGTTGATTGGTCTTTTAAACTGGAGTGACAAATCACGAGC - 22140
     -IR * L V S R V D W S F K L E * O I T S
     - Y D D W S V G L I G L L N W S D K S R A
        T M T G Q * G * L V F * T G V T N H E Q
22141 - AACTTCATCACTAATGAATGTACTACCAGTGCAAAATGTGTCACAATTGAGACAATTCCA - 22200
     -N F I T N E C T T S A K C V T I E T I P
     - TSSLMNVLPVQNVSQLRQFQ
       L H H * * M Y Y Q C K M C H N * D N S N
22201 - ATTGTGAGTCTTGCAGAAGCCACGGCCTCCATTTGCATAGACATAGAAAGATCTCTTCAT - 22260
     -I V S L A E A T A S I C I D I E R S L H
     - L * V L Q K P R P P F A * T * K D L F M
       C E S C R S H G L H L H R H R K I S S C
22261 - GCCATTAACAATAGTTGTACACTCAACGCGTGTGGCACGATTGCGCTTATAGCACATCAT - 22320
     - A I N N S C T L N A C G T I A L I A H H
      PLTIVVHSTRVARLRL*HIM
       H * Q * L Y T Q R V W H D C A Y S T S C
22321 - GCAAGTCGAAGAGGTGCAACCATCCATGATATGAACATAGCTCTTCCATATGTAGTAGAA - 22380
    - A S R R G A T I H D M N I A L P Y V V E
       \verb|Q V E E V Q P S M I * T * L F H M * * K | 
       K S K R C N H P * Y E H S S S I C S R K
22381 - AGAAGCAAAGAAGATGTACATCCTAACCATTGCAGAAACGGGTGCCATTTGTACAATACT - 22440
    -RSKEDVHPNHCRNGCHLYNT
      E A K K M Y I L T I A E T G A I C T I L
       K Q R R C T S * P L Q K R V P F V Q Y *
22441 - AATGATAAACCACATGAGCCAAGAATTGCTGATGAAATGACTAGCAAAATAGCCAAAGAA - 22500
    -NDKPHEPRIADEMTSKIAKE
       \begin{smallmatrix} M & I & N & H & M & S & Q & E & L & L & M & K & \star & L & A & K & \star & P & K & N \\ \end{smallmatrix} 
       * * T T * A K N C * * N D * Q N S Q R T
22501 - CACCTGCATTATAGCTGAAAGACCTAATAAATAAAGAATTTTGTGAACAACATATATGC - 22560
    -HLHYS * KT * * IKEFCEQHIC
      T C I I A E R P N K * K N F V N N I Y A
       PAL*LKDLINKRIL*TTYMP
22561 - CAAAACCCACTCAGCGGCCAGACCTAAAATTGTCAAGTCTAGCTTGTACGATGAAATCGT - 22620
    -QNPLSGQT * NCQV * LVR * NR
       \begin{smallmatrix} K & T & H & S & A & A & R & P & K & I & V & K & S & S & L & Y & D & E & I & V \\ \end{smallmatrix} 
       K P T Q R P D L K L S S L A C T M K S S
22621 - CACCTGAATGGTTTCAAGAGCTGGATAAGAATCAAGGGAGTCTAATCCACTTAAACAAAT - 22680
    - H L N G F K S W I R I K G V * S T * T N
         M V S R A G * E S R E S N P L K Q M
       PEWFQELDKNQGSLIHLNKC
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22681 - GCTGCAAGGAAAAGAACCTTCACAGAAATCCATAGTAGTAACGTTAGACGAATTAAGATA - 22740
    - A A R K R T F T E I H S S N V R R I K I
     L Q G K E P S Q K S I V V T L D E L R Y
C K E K N L H R N P * * * R * T N * D T
22741 - CAATTCTCTAACGCCATTACAATAAGAAGGAGCACCAAAATTAGATAAGAGTACACCAAA - 22800
    -QFSNAITIRRSTKIR*EYTK
     N S L T P L Q * E G A P K L D K S T P K
      I L * R H Y N K K E H Q N * I R V H Q K
22801 - AGCAGCAGTTACACAGATTAGAGAACCTAAGCAAATACTTAACAACAATAGCCACATAGC - 22860
    A A V T Q I R E P K Q I L N N N S H I A
      Q Q L H R L E N L S K Y L T T I A T * R
-DCEQFRKFG*LHIINAGIQT
    - I V N N L E N L G D F T * L M P A S K H
      L * T I * K I W V T S H N * C R H P N I
- * F S N T L N T I F S N S C R * * S S N
    - N L A T L L T L F L A I V V G S E A L I
      I * Q H S * H Y F * Q * L * V V K L * F
22981 - TCTAGAATTGGTACTTTTAGTAAAAGTACACAATTGGAACAATAATGTAAACACATAAGG - 23040
    -SRIGTFSKSTQLEQ*CKHIR
    - L E L V L L V K V H N W N N N V N T * G
      * N W Y F * * K Y T I G T I M * T H K A
23041 - CATATAATTGTTAAACACACGTTGTGCTAATCTCTTAGCGCAATTTGATGTTGTAATTGC - 23100
    -HIIVKHTLC * SLSAI * CCNC
    - I * L L N T R C A N L L A Q F D V V I A
      Y N C * T H V V L I S * R N L M L * L L
23101 - TGCTTGTCCTAAGAATGGTTTGACATAAGCCAAAATTTTACTCCAAGGAACACTATTAAT - 23160
    -CLS * E W F D I S Q N F T P R N T I N
     ACPKNGLT * AKILLQGTLLI
     LVLRMV*HKPKFYSKEHY*L
23161 - TGCAGCAATACCATGAGTGGCAATTGTTTTTAAACCTAAGGCTAGTGAAAGCTCATTAGG - 23220
    -CSNTMSGNCF*T*G**KLIR
    - A A I P * V A I V F K P K A S E S S L G
      QQYHEWQLFLNLRLVKAH*V
23221 - TTTCTTAATGGTAATGCTTGTGTTTTCCACATAAGCAGCCATAAGATCCTCATGACCTAA - 23280
    -FLNGNACVFHISSHKILMT*
    - F L M V M L V F S T * A A I R S S * P N
      S * W * C L C F P H K Q P * D P H D L T
23281 - CTCTTGTGTTACTTTAACACCTTCATCTGATGGTTTAAGTATGACATTGCCTACAACTTC - 23340
    -L L C Y F N T F I * W F K Y D I A Y N F
     S C V T L T P S S D G L S M T L P T T S
      L V L L * H L H L M V * V * H C L Q L R
23341 - GGTAGTTTTCACGTCACACTCTATGACTTCCTTCTGTATGGTAGGATTTTCCACTACTTC - 23400
    -GSFHVTLYDFLLYGRIFHYF
     V V F T S H S M T S F C M V G F S T T S
      * F S R H T L * L P S V W * D F P L L L
23401 - TTCAGAGGTGGGTTGTTGACTTTCACAAGCAAGATTGTCCATTCCTTGTGTGTCTTCTAC - 23460
   -FRGGLLTFTSKIVHSLCVFY
     QRWVVDFHKQDCPFLVCLLL
23461 - TGCCAGAACTTCAAATGAATTTGAAGTATCTACTGGCTTTGTACTCCAAAGACAACGTAA - 23520
   -CQNFK*I*SIYWLCTPKTT*
     ARTSNEFEVSTGFVLQRQRK
     PELQMNLKYLLALYSKDNVN
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23521 - ACACCAAGTGTTTGGATTGAACGTTGTCTTGGTTGTAGCCTGGTTAATGTGCCAAACAAT - 23580
    -TPSVWFERCLGCSLVNVPNN
     H Q V F G L N V V L V V A W L M C Q T I
       TKCLV*TLSWL*PG*CAKQL
23581 - TGGCTTATGCAGTAATTTAGCACCTTTCTTGAAACTCGCTGAATAGTGTCTATAGTCAAT - 23640
    -W L M Q * F S T F L E T R * I V S I V N
    - G L C S N L A P F L K L A E * C L * S I
       A Y A V I * H L S * N S L N S V Y S Q *
23641 - AGCCACTACATCGCCATTCAAGTCTGGGAAGATGTGACAGATAGCTCTCGTGAAGCTGG - 23700
    -SHYIAIQVWEECDR*LS*SW
    - A T T S P F K S G K N V T D S S R E A G
      PLHRHSSLGRM * QIALVKLA
23701 - CTTTGTGAAGCCTGTCATTTGATTTAAATCATCAGCAAATTTTGTGTTAGAACATGTGAG - 23760
    -LCEACHLI*IISKFCVRTCE
    - F V K P V I * F K S S A N F V L E H V S
      L * S L S F D L N H Q Q I L C * N M * V
23761 - TTTGAAATTATCAAAACTCGCATTTGGTAATGGTTGGGTACAAGGTCTATAGGCTG - 23820
    -FEIIKTRIW * WLSWYKVYRL
    - L K L S K L A F G N G * V G T R S I G C
      * N Y Q N S H L V M V E L V Q G L * A A
23821 - CTCTGTATAGTAAGCATTATCCTTTTTATAATACCCATCCAATTTTGGTTCAATCTCTGT - 23880
    -LCIVSIILFIIPIQFWFNLC
    - S V * * A L S F L * Y P S N F G S I S V
      LYSKHYPFYNTHPILVQSLC
23881 - GTAAGTAACTCCATCGAGTTTATACGACACAGGCTTGATGGTTGTAGTGTAAGATGTTTC - 23940
    -V S N S I E F I R H R L D G C S V R C F
     * V T P S S L Y D T G L M V V V * D V S
      K * L H R V Y T T Q A * W L * C K M F P
23941 - CTTGTAGAAAACATCAGTCACTGGTCCTTTGTACTCTGACATCTTTGTAAGGTGAGCTCC - 24000
    -LVENISHWSFVL*HLCKVSS
     L * K T S V T G P L Y S D I F V R * A P
      C R K H Q S L V L C T L T S L * G E L R
24001 - GTCAATACGATAGAGGGTCTCCTTAGCAGTTATATGAGTGTAATGACCACACTGATAGTT - 24060
    -VNTIEGLLSSYMSVMTTLIV
     S I R * R V S L A V I * V * * P H * * L
      Q Y D R G S P * Q L Y E C N D H T D S Y
24061 - ACCAGTGTACTCATTCGCACATAAGAATGTACCTTGCTGTAATTTATACTCAGCAGGTGG - 24120
    -TSVLIRT*ECTLL*FILSRW
     P V Y S F A H K N V P C C N L Y S A G G
      Q C T H S H I R M Y L A V I Y T Q Q V V
24121 - TGCAGACATCATAACAAAAGAAGACTCTTGTTGTACTAGATATTGTGTAGCATCACGACC - 24180
    - C R H H N K R R L L L Y * I L C S I T T
- A D I I T K E D S C C T R Y C V A S R P
      Q T S * Q K K T L V V L D I V * H H D H
24181 - ACACACACATGGAATGGAAACACCTGTCTTAAGATTATCATAAGATAGAGTACCCATATA - 24240
    -THTWNGNTCLKIIIR*STHI
     H T H G M E T P V L R L S * D R V P I Y
      T H M E W K H L S * D Y H K I E Y P Y T
24241 - CATCACAGCTTCTACACCCGTTAAGGTAGTATTTTCTGACCACAATGTTTACACACCAC - 24300
    - H H S F Y T R * G S S F L T T M F T H H
      S O L L H P L R * * F S D H N V Y T P H
24301 - ATTAAGAACTCGCTTTGCAGATTCCAAATTAGCATGCTGTAGAAGATGGGTCATAGTTTC - 24360
    -IKNSLCRFQISML * KMGHSF
     LRTRFADSKLACCRRWVIVS
        ELALQIPN * HAVEDGS * FL
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24361 - TCTGACATCACCAAGCTCGCCAACAGTTTTATTACTGTAAGCGAGTATGAGTGCACAAAA - 24420
    -SDITKLANSFITVSEYECTK
    - L T S P S S P T V L L L * A S M S A Q K
       * H H Q A R Q Q F Y Y C K R V * V H K S
24421 - GTTAGCAGCATCACCAGCACGGGCTCTATAATAAGCCTCTTGAAGTGCTGGTGCATTGAA - 24480
    -V S S I T S T G S I I S L L K C W C I E
    - L A A S P A R A L * * A S * S A G A L N
      * Q H H Q H G L Y N K P L E V L V H * I
24481 - TTTGACTTCAAGCTGTTGAAGTGCTAATAAAACACTAGACAAATAACAATTGTTATCAGC - 24540
    -FDFKLLKC * * NTRQITIVIS
    - L T S S C * S A N K T L D K * Q L L S A
       * L Q A V E V L I K H * T N N N C Y Q P
24541 - CCATTTAATTGAAGTTAAACCACCAACTTGAGGAAATTTCCATTTCTTTGTGTGGTTTAA - 24600
    -PFN * S * TTNLRKFPFLCVV *
    - H L I E V K P P T * G N F H F F V W F K
       I * L K L N H Q L E E I S I S L C G L K
24601 - AGCAGACATGTACCTACCAAGAAAACTCTCATCAAGAGTATGGTAGTACTCGAAAGCTTC - 24660
    -SRHVPTKKTLIKSMVVLESF
    - A D M Y L P R K L S S R V W * Y S K A S
       Q T C T Y Q E N S H Q E Y G S T R K L H
24661 - ACTACGTAGTGTCATCACTAGGTAGTACAAAGAAAGTCTTACCCTCATGATTTACATG - 24720
    -TT * C V I T R * Y K E S L T L M I Y M
    - L R S V S S L G S T K K V L P S * F T *
      Y V V C H H * V V Q R K S Y P H D L H E
24721 - AGGTTTAATTTTTGTAACATCAGCACCATCCAAGTATGTTGGACCAAACTGCTGTCCATA - 24780
    -RFNFCNISTIQVCWTKLLSI
     G L I F V T S A P S K Y V G P N C C P Y
      V * F L * H Q H H P S M L D Q T A V H M
24781 - TGTCATAGACATATCCACAAGCTGTGTGTGGAGATTAGTGTTGTCCACAGTTGTGAACAC - 24840
    -CHRHIHKLCVEISVVHSCEH
    - V I D I S T S C V W R L V L S T V V N T
     S * T Y P Q A V C G D * C C P Q L * T L
24841 - TTTTATAGTCTTAACCTCCCGCAGGGATAAGAGACTCTTTAGTTTGTCAAGTGAAAGAAC - 24900
    -FYSLNLPQG*ETL*FVK*KN
     F I V L T S R R D K R L F S L S S E R T
      L * S * P P A G I R D S L V C O V K E P
24901 - CTCACCGTCAAGATGAAACTCGACGGGGCTCTCCAGAGTGTGGTACACAATTTTGTCACC - 24960
    -LTVKMKLDGALQSVVHNFVT
     S P S R * N S T G L S R V W Y T I L S P
      H R Q D E T R R G S P E C G T Q F C H H
24961 - ACGCTTAAGAAATTCAACACCTAACTCTGTACGCTGTCCTGAATAGGACCAATCTCTGTA - 25020
    -TLKKFNT * LCTLS * IGPIS V
     R L R N S T P N S V R C P E * D Q S L *
      A * E I Q H L T L Y A V L N R T N L C K
25021 - AGAGCCAGCCAAAGAAACTGTTTCTACAAAGTGCTCCTCAGATGTCTTTGATGACGAAGT - 25080
    -RASQRNCFYKVLLRCL**RS
-EPAKETVSTKCSSDVFDDEV
      S Q P K K L F L Q S A P Q M S L M T K *
25081 - GAGGTATCCATTATATGTAGTAACAGCATCTGGTGATGATACTGACACTACGGCAGGAGC - 25140
    -EVSIICSNSIW**Y*HYGRS
     25141 - TTTAAGAGAACGCATACAGCGCGCAGCCTCTTCAAGATTAAAACCATGTGTCACATAACC - 25200
    -FKRTHTARSLFKIKTMCHIT
     * E N A Y S A Q P L Q D * N H V S H N Q
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25201 - AATTGGCATTGTGACAAGCGGCTCATTTAGAGAGTTCAGCTTCGTAATAATAGAAGCTAC - 25260
     -N W H C D K R L I * R V Q L R N N R S Y
       I G I V T S G S F R E F S F V I I E A T
        LAL*QAAHLESSAS***KLQ
25261 - AGGCTCTTTACTAGTATAAAAGAAGAATCGGACACCATAGTCAACGATGCCCTCTTGAAT - 25320
     -RLFTSIKEESDTIVNDALLN
      G S L L V * K K N R T P * S T M P S * I
       ALY * Y K R R I G H H S Q R C P L E F
25321 - TTTAATTCCTTTATACTTACGTTGGATGGTTGCCATTATGGCTCTAACATCCATGCATAT - 25380
     -FNSFILTLDGCHYGSNIHAY
      LIPLYLRWMVAIMALTSMHI
        * F L Y T Y V G W L P L W L * H P C I *
25381 - AGGCATTAATTTCTTGTCTCTTCAGCATGAGCAAGCATTTCTCAAATTCCAGGATAC - 25440
     -RH * F S C L F S M S K H F S Q I P G Y
     - GINFLVSSA * ASISLKFQDT
        A L I F L S L Q H E Q A F L S N S R I Q
25441 - AGTTCCTAGAATCTCTTCCTTAGCATTAGGTGCTTCTGAAGGTAGTACATAAAATGCAGA - 25500
     -SS*NLFLSIRCF*R*YIKCR
     - V P R I S S L A L G A S E G S T * N A D
       FLESLP*H*VLLKVVHKMQI
25501 - TTTGCATTTCTTAAGAGCAGTCTTAGCTTCCTCAAGTGTATAACCAGCACATCCTTGTCC - 25560
     -FAFLKSSLSFLKCITSTSLS
     - L H F L R A V L A S S S V * P A H P C P
       CIS*EQS*LPQVYNQHILVQ
25561 - AGGGTACGTGGTTATATACTCATCAACTGGCACTTTCTTCAAAGCTCTTGAGAGCATCTC - 25620
     -RVRGYILINWHFLQSS*EHL
     - G Y V V I Y S S T G T F F K A L E S I S
       G T W L Y T H Q L A L S S K L L R A S Q
25621 - AGTAGTGCCACCAGCCTTTTTGGAGGGTATTACAACACAAGTGATATCACCACTAGTGAT - 25680
     -SSATSLFGGYYNTSDITTSD
      V V P P A F L E G I T T Q V I S P L V I
       * C H Q P F W R V L Q H K * Y H H * * *
25681 - AACATCACCTACCATGTAAGGTGCATCCTTCTCAAGGAAAGACATATCTTCACCTCTAAG - 25740
     -NITYHVRCILKERHIFTSK
      T S P T M * G A S F S R K D I S S P L S
       H H L P C K V H P S Q G K T Y L H L * A
25741 - CATGTTCTGAGAATCATGGTAAAGCTTACCATTGATATCAGCAAACAAGAGTAACTTATT - 25800
    -HVLRIMVKLTIDISKQE*LI
      MF*ESW*SLPLISANKSNLL
       C S E N H G K A Y H * Y Q Q T R V T Y W
25801 - GGTAAGAACTTAGTTTCTTCCAGTGTTGTGGTAACCTCATCAATGCAGGCCTTAATTTT - 25860
    -G K K L S F F Q C C G N L I N A G L N F
-V R N L V S S S V V V T S S M Q A L I F
       * E T * F L P V L W * P H Q C R P * F L
25861 - TGGCTTCACATCGACAGGCTTCTGTACGACAGATTTCTCCTCAGTTTTGGAATCTTCTGT - 25920
    -W L H I D R L L Y D R F L L S F G I F C
       \texttt{G} \ \ \texttt{F} \ \ \texttt{T} \ \ \texttt{G} \ \ \texttt{F} \ \ \texttt{C} \ \ \texttt{T} \ \ \texttt{T} \ \ \texttt{D} \ \ \texttt{F} \ \ \texttt{S} \ \ \texttt{V} \ \ \texttt{L} \ \ \texttt{E} \ \ \texttt{S} \ \ \texttt{V} 
       A S H R Q A S V R Q I S P Q F W N L L C
25921 - GTTTGGTGGCTCCTCTTGTTTAGGTGCTTCCACTCTAGGCTTCAGGTTATCAAGATAATC - 25980
    -V W W L L F R C F H S R L Q V I K I I
      F G G S S C L G A S T L G F R L S R * S
       L V A P L V * V L P L * A S G Y Q D N P
25981 - CATGACAACCTGCTCATAAAGAGCTTTGTCATTGACTGCAATATAAACCTGTGTACGAAC - 26040
    - H D N L L I K S F V I D C N I N L C T N
- M T T C S * R A L S L T A I * T C V R T
         Q P A H K E L C H * L Q Y K P V Y E P
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26041 - CGTCTGCACGCACACTTGTAAAGACTGAAGTGGTTTAGCACCAAATATGCCTGCTGACAA - 26100
     -RLHAHL * RLKWFSTKYAC * Q
      V C T H T C K D * S G L A P N M P A D N
       S A R T L V K T E V V * H Q I C L L T T
26101 - CAATGGTGCAAGTAAGATGTCCTGTGAATTGAAATTTTCATATGCTGCCTTAAGAAGCTG - 26160
     -Q W C K * D V L * I E I F I C C L K K L
     - NGASKMSCELKFSYAALRSW
      M V Q V R C P V N * N F H M L P * E A G
26161 - GATGTCCTCACCTGCATTTAGGTTAGGTCCAACAACATGCAGACACTTCTTAGCAAGATT - 26220
     -DVLTCI * VRSNNMQTLLSKI
     - M S S P A F R L G P T T C R H F L A R L
       C P H L H L G * V Q Q H A D T S * Q D Y
26221 - ATGTCCAGAAAGCAAACAAGACCCTCCTACTGTAAGAGGGCCATTTAGCTTAATGTAATC - 26280
    -M S R K Q T R P S Y C K R A I * L N V I
    - C P E S K Q D P P T V R G P F S L M * S
      V Q K A N K T L L L * E G H L A * C N H
26281 - ATCACTCTCCTTTTGCATGGCACCATTGGTTGCCTTGTTGAGTGCACCTGCTACACCACC - 26340
    -ITLLHGTIGCLVECTCYTT
    - S L S F C M A P L V A L L S A P A T P P
       H S P F A W H H W L P C * V H L L H H H
26341 - ACCATGTTTCAGGTGTATGTTAGCAGCATTTACAATCACCATAGGATTAGCACTTTGTGC - 26400
    -TMFQVYVSSIYNHHRISTLC
    - P C F R C M L A A F T I T I G L A L C A
       \tt H \ V \ S \ G \ V \ C \ * \ Q \ H \ L \ Q \ S \ P \ * \ D \ * \ H \ F \ V \ P
26401 - CTCCTTAACGATGTCAACACATTTAATGGCAACATTGTCAGTAAGTTTTAAATAACCAGT - 26460
    -LLNDVNTFNGNIVSKF*ITS
     S L T M S T H L M A T L S V S F K * P V
      P * R C Q H I * W Q H C Q * V L N N Q *
26461 - AAACTGATTAACTGGTTCTCAGGTGTAGGTTCTGGTTCTGGCTCAATCTCTGATTGCTC - 26520
    -KLINWFFRCRFWFWLNL*LL
      N * L T G S S G V G S G S G S I S D C S
       T D * L V L Q V * V L V L A Q S L I A Q
26521 - AGTAGTATCATCCAGCCAGTCTTCCTCTTCTTCTTCCTCAACTCGAACTGTTTCAGCTGA - 26580
    -SSIIQPVFLFFFLNSNCFS*
      * Y H P A S L P L L P Q L E L F Q L R
26581 - GGCACCAAATTCCAGAGGGAGACCTTGATAATCATCCTCTGTACCGTACTCATGTTCACA - 26640
    -GTKFQRETLIILCTVLMFT
      A P N S R G R P * * S S S V P Y S C S Q
       HQIPEGDLDNHPLYRTHVHR
26641 - GGTTTCATCAATTTCTTCCTCACACTCTGCATCGTCCTCTTCTTCCTCATCTGGAGG - 26700
    -GFINFFFLTLCIVLFFLIWR
      F H Q F L L P H T L H R P L L P H L E G
26701 - GTAAAAGGAACAATACATACGTGATGAAAAGTTTTCTTCACCAGCATCATCAAATAAGTA - 26760
    -V K G T I H T * * K V F F T S I I K * V
       KEQYIRDEKFSSPASSNK*
       K R N N T Y V M K S F L H Q H H Q I S R
26761 - GAATGTAGCTACACTCCACTCATCAAGATCAATACCCATGTTGGTAAGGAGATCAGAAAC - 26820
    - E C S Y T P L I K I N T H V G K E I R N
       \begin{smallmatrix} N & V & A & T & L & H & S & S & R & S & I & P & M & L & V & R & R & S & E & T \\ \end{smallmatrix} 
       M * L H S T H Q D Q Y P C W * G D Q K L
26821 - TGGTTGTAAAGTCTTCACAACAGCCTCTGCTACAACACATGCAAACTCAGTAACTTCGGT - 26880
    -WL * SL H N S L C Y N T C K L S N F G
     G C K V F T T A S A T T H A N S V T S V
       V V K S S Q Q P L L Q H M Q T Q * L R Y
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26881 - ACCGGATTCAACAGTGTAGACAGAGCACTTTTCATTAAGCACTTTGTCAACACGTTCATC - 26940
     -TGFNSVDRALFIKHFVNTFI
      PDSTV*TEHFSLSTLSTRSS
       R I Q Q C R Q S T F H * A L C Q H V H Q
26941 - AAGCTCAAATGTGATTCTCACATTCTTGTAACCTTGAACTTCCCAAACAGTATCTTCTCC - 27000
     -K L K C D S H I L V T L N F P N S I F S
      SSNVILTFL*P*TSQTVSSP
       A Q M * F S H S C N L E L P K Q Y L L Q
-KGYTFNWCTPF*AKDIVCSQ
     - K V T P L I G A P P F K R K T L F V A S
      R L H L * L V H P L L S E R H C L * P V
27061 - TAAACCAGGAGACAATGCGCAGTATTGTTCTTTGTCCTTAATCTCTAAGAGCATGAGGCC - 27120
    - * T R R Q C A V L F F V L N L * E H E A
    - K P G D N A Q Y C S L S L I S K S M R P
       NQETMRSIVLCP*SLRA*GH
27121 - ATTTACACAGACTGGTGTGCCGACGATAGCTCCATTTGTGAAGCTATCAACGGGCGTCTC - 27180
    -IYTDWCADDSSICEAINGRL
     F T Q T G V P T I A P F V K L S T G V S
       L H R L V C R R * L H L * S Y Q R A S R
27181 - GAGTGCTTCGAGTTCACCGTTCTTGAGAACAACCTCCTCAGAGGTAAGTACTGTGTCATG - 27240
    -ECFEFTVLENNLLRGKYCVM
      S A S S P F L R T T S S E V S T V S C
      V L R V H R S * E Q P P Q R * V L C H V
27241 - TGAATCACCTTCAAGAAAGGTTACTTCTTTTGGTGCCTTAAGAGGCATGAGTAGTTGCAG - 27300
    - * I T F K K G Y F F W C L K R H E * L Q
    - E S P S R K V T S F G A L R G M S S C S
      N H L Q E R L L L V P * E A * V V A A
27301 - CTGCTCCTTGCCACGTATACACTGACGGTAAAGTCCCTTGCTTTGAGCGATGAAGACTTC - 27360
    -L L L A T Y T L T V K S L A L S D E D F
     C S L P R I H * R * S P L L * A M K T S
       A P C H V Y T D G K V P C F E R * R L H
27361 - ACCTAAGTTGAGTGATCGCAACTTTGCGCCAGCGATAGTGACTTGATCAATGCACATTTC - 27420
    -T * V E * S Q L C A S D S D L I N A H F
      PKLSDRNFAPAIVT*SMHIS
       LS * VIATLRQR * * LDQCTFR
27421 - GAGTGCCTTGTTAACAACATCAATGAAGCATTTTACACAATCCTTGATGTTATCTGAAGC - 27480
    - E C L V N N I N E A F Y T I L D V I * S
- S A L L T T S M K H F T Q S L M L S E A
       V P C * Q H Q * S I L H N P * C Y L K O
27481 - AACCTGTATTTGACCCTTGACGATGTCAAAAACACCTGTAATGAGAAATTTGAGAATCTC - 27540
    -N L Y L T L D D V K N T C N E K F E N L
      27541 - CCAAGCATCCTTGAGAAATTCAACTCCTGCACTAAGTTTCGCCTCAATCCATTCAAAGAT - 27600
    - P S I L E K F N S C T K F R L N P F K D
      Q A S L R N S T P A L S F A S I H S K I
      K H P * E I Q L L H * V S P Q S I Q R *
27601 - AGGCCTGAGTTTTTCAACAGTAGTGCCCAAAAGATTAGACAACCACTGAGAAGTCTGTTG - 27660
    -RPEFFNSSAQKIRQPLRSLL
      G L S F S T V V P K R L D N H * E V C C
      A * V F Q Q * C P K D * T T E K S V V
27661 - TACAAGACCACCAGTTACATATGCCATAATAATGACACTGTTGGTGAGCAGGTCTGAAGT - 27720
    -Y K T T S Y I C H N N D T V G E Q V * S
     TRPPVTYAIIMTLLVSRSEV
      Q D H Q L H M P * * * H C W * A G L K Y
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27721 - ATAAACCATGGCGTCGACAAGACGTAATGACTGTTCAGAAATACCATCAAGTATGGTGAC - 27780
    -INHGVDKT**LFRNTIKYGD
      * T M A S T R R N D C S E I P S S M V T
      K P W R R Q D V M T V Q K Y H Q V W * Q
27781 - AGCTGCTCTTTGCAAATCAGGAATTGAGTGGTTTGCTGCATCAAGTGTGCGCGCAAAAAT - 27840
    -S C S L Q I R N * V V C C I K C A R K N
    - A A L C K S G I E W F A A S S V R A K I
      L L F A N Q E L S G L L H Q V C A Q K L
27841 - TGATCTGATAACACCAGCAGCCTGTGAGGGAAAACCACACAGTGGTGTTAAAACTGATCT - 27900
    - * S D N T S S L * G K T T Q W C * N * S
    - D L I T P A A C E G K P H S G V K T D L
      I * * H Q Q P V R E N H T V V L K L I S
27901 - CTGTTGTCCAATGTTCCAAGCACCTTTTACGGGCTTTCCCTTGGTAACTTTATAGTTACC - 27960
    -L L S N V P S T F Y G L S L G N F I V T
    - C C P M F Q A P F T G F P L V T L * L P
      V V Q C S K H L L R A F P W * L Y S Y R
27961 - GCAGGACTCAACAATGGTTTTGAAAGACTTGTAATCAAGACTCTTTATAGTGTCAATAAA - 28020
    - A G L N N G F E R L V I K T L Y S V N K
    - Q D S T M V L K D L * S R L F I V S I K
      RTQQWF*KTCNQDSL*CQ*R
-GTCRSRERCQNDGNLFIQMK
     ALVEAEKDAKMMATSSFK*K
      H L * K Q R K M P K * W Q P L H S N E N
28081 - ATCGCCAACAATGTTAATGTTAACACGTTCACGACTCAGTATCTCAAGGAGATCCTCATT - 28140
    -I A N N V N V N T F T T Q Y L K E I L I
     S P T M L M L T R S R L S I S R R S S F
      R Q Q C * C * H V H D S V S Q G D P H S
28141 - CAAGGTCTCCACATTGTCACCAGTAATGCCAGTATGGCCTGAGCCAATATCAGCACTAGC - 28200
    -QGLHIVTSNASMA*ANISTS
    - K V S T L S P V M P V W P E P I S A L A
      R S P H C H Q * C Q Y G L S Q Y Q H * H
28201 - ACGAGGAACCCAGTAGGCACGCTTATTATAGCAGCCAACATAGGCAAACACACAGCCTCC - 28260
    -TRNPVGTLIIAANIGKHTAS
     RGTQ*ARLL*QPT*ANTQPP
     E E P S R H A Y Y S S Q H R Q T H S L Q
28261 - AAAACATCTAGTCCTACCTCCCTTGCGGAGTCGAGTTTCAATGTTTGAGTGGTTGTGATA - 28320
    -KTSSPTSLAESSFNV*VVI
     K H L V L P P L R S R V S M F E W L * *
     N I * S Y L P C G V E F Q C L S G C D N
-I C N T M L R S N L W V L T G R T W H F
     L Q H Y A Q V Q S L G L D R Q D M A F S
28381 - CACTACAGCATTAGTAGGTAGGTACCCACATGTAGTAGGTCCTTCAATAACTAAATTTTC - 28440
    -HYSISR * VPTCSRSFNN * IF
      TTALVGRYPHVVGPSITKFS
LQH**VGTHM**VLQ*LNFQ
28441 - AGTGCCACAATGTTCACAAGTGGCTTTCAGAAAGTCGCACGTCTGCCATGAAACTTCATC - 28500
    -SATMFTSGFQKVARLP*NFI
     V P Q C S Q V A F R K S H V C H E T S S
      CHNVHKWLSESRTSAMKLHR
28501 - GCAATGATTACATTTCATCAAGGTAGACAAGTGCATATTGTTACACTCCTGTGGAGATGC - 28560
    -AMITFHQGRQVHIVTLLWRC
         L H F I K V D K C I L L H S C G D A
      N D Y I S S R * T S A Y C Y T P V E M O
```

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28561 - AACAGGGTACACAGAGCGTATACGCCCCATGAAACCCTCAGTCTTTTTCTTTTCAACACG - 28620
     -NRVHRAYTPHETLSLFLFNT
-TGYTERIRPMKPSVFFFSTR
       Q G T Q S V Y A P * N P Q S F S F Q H V
28621 - TGGTTGAATGACTTTGACTTTTGAGTTAAGAGGAAACACAAACTTTGGGCATTCCCCTTT - 28680
     -WLNDFDF * VKRKHKLWAFPF
     - G * M T L T F E L R G N T N F G H S P L
       VE * L * L L S * E E T Q T L G I P L *
28681 - GAAAGTGTCAAATTTCTTGGCACTCTTAATTTCGAAGGGTGTCTGGTGCTCGTAGCTCTT - 28740
    -ESVKFLGTLNFEGCLVLVAL
    - K V S N F L A L L I S K G V W C S * L L
       K C Q I S W H S * F R R V S G A R S S Y
28741 - ATCAGAGCGCTCAGTGAACCAGGCAATTTCATGCTCATGGTCACGGCAGCAGTAGACACC - 28800
    -IRALSEPGNFMLMVTAAVDT
    - SERSVNQAISCSWSRQQ * T P
      Q S A Q * T R Q F H A H G H G S S R H L
28801 - TCTCTTCGACTCGATGTAATCAAGTTGTTCGGAAAGAGTGCACATTGACTTGCCCGCGCG - 28860
    -SLRLDVIKLFGKSAH * LARA
    - L F D S M * S S C S E R V H I D L P A R
       S S T R C N Q V V R K E C T L T C P R V
28861 - TGCGAGAAAATCTTTGATGCAATCAAGAGGGTACCCATCTGGGCCACAGAAATTGTTGTC - 28920
    -CEKIFDAIKRVPIWATEIVV
    - A R K S L M Q S R G Y P S G P Q K L L S
       RENL * CNQEGTHLGHRNCCR
28921 - GACATAGCGAGTGACTCCACTGAGCTCACGAGTGAGTTCACGGAGTGCACCACT - 28980
    -DIASDCTSIELTSEFTECTT
    - T * R V T A P P L S S R V S S R S A P L
      HSE*LHLH*AHE*VHGVHHC
28981 - GCCATGCTTAGTGTTCCAGTTTTGTTCATAATCTTCAATGGGATCAGTGCCAAGCTCGTC - 29040
    - A M L S V P V L F I I F N G I S A K L V
    - PCLVFQFCS * SSMGSVPSSS
      HA * C S S F V H N L Q W D Q C Q A R H
29041 - ACCTAAGTCATAAGACTTTAGATCGATGCCATAGCTATGACCACCGGCTCCCTTATTACC - 29100
    -T * V I R L * I D A I A M T T G S L I T
     PKS * DFRSMP * L * PPAPLLP
      LSHKTLDRCHSYDHRLPYYR
29101 - GTTCTTACGAAGAACATTGCGGTATGCAATTGGGGTTTCGCCCACATGTGGCACGAG - 29160
    -VLTKKNIAVCNWGFAHMWHE
     F L R R R T L R Y A I G V S P T C G T S
       S Y E E E H C G M Q L G F R P H V A R V
29161 - TACTCCCAGTGTTATACCGCTACGACCGTACTGAATGCCGTCCATTTCTGCAACCAGCTC - 29220
    -YSQCYTATTVLNAVHFCNQL
      T P S V I P L R P Y * M P S I S A T S S
       LPVLYRYDRTECRPFLOPAO
29221 - AACGACCTTGTGGCCGTGATTGGTGCTTAAGGCATCAGAACGTTTAATGAACACATAGGG - 29280
    -NDLVAVIGA * GIRTFNEHIG
      T T L W P * L V L K A S E R L M N T * G R P C G R D W C L R H Q N V * * T H R A
29281 - CTGTTCAAGCTGGGGCAGTACGCCTTTTTCCAGCTCTACTAGACCACAAGTGCCATTTTT - 29340
    - L F K L G Q Y A F F Q L Y * T T S A I F
- C S S W G S T P F S S S T R P Q V P F L
      V Q A G A V R L F P A L L D H K C H F *
29341 - GAGGTGTTCACGTGCCTCCGATAGGGCCTCTTCCACAGAGTCCCCGAAGCCACGCACTAG - 29400
    -EVFTCLR * GLFHRVPEATH *
      R C S R A S D R A S S T E S P K P R T S
      G V H V P P I G P L P Q S P R S H A L A
```

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29401 - CACGTCTCTAACCTGAAGGACAGGCAAACTGAGTTGGACGTGTGTTTTCTCGTTGACACC - 29460
    - H V S N L K D R Q T E L D V C F L V D T
- T S L T * R T G K L S W T C V F S L T P
- R L * P E G Q A N * V G R V F S R * H Q
29461 - AAGAACAAGGCTCTCCATCTTACCTTTCGGTCACACCCGGACGAAACCTAGGTATGCTGA - 29520
    -KNKALHLTFRSHPDET * VC *
    - R T R L S I L P F G H T R T K P R Y A D
      EQGSPSYLSVTPGRNLGMLM
29521 - TGATCGACTGCAACACGGACGAAACCGTAAGCAGTCTGCAGAAGAGGGACGAGTTACTCG - 29580
    - * S T A T R T K P * A V C R R G T S Y S
    - D R L Q H G R N R K Q S A E E G R V T R
      I D C N T D E T V S S L Q K R D E L L V
29581 - TTTCTTGTCAACGACAGTAAAATTTATTGTTTATACTGCGTAGGTGCACTAGGCATG - 29640
    -FLVNDSKIYYCLYCVGALGM
    - F L S T T V K F I I V Y T A * V H * A C
      SCQRQ * NLLLFILRRCTRHA
29641 - CAGCCGAGCGACAGCTACACAGATTTTAAAGTTCGTTTAGAGAACAGATCTACAAGAGAT - 29700
    -QPSDSYTDFKVRLENRSTRD
    - S R A T A T Q I L K F V * R T D L Q E I
      AERQLHRF * SSFREQIYKRS
29701 - CGAGGTTGGTTTGCCTGGGTAGGTAAAAACCTAATAT - 29742
    - R G W L A F P G * V K T * Y X
    - E V G W L F L G R * K P N X
    - RLVGFSWVGKNLIX
```

FIG. 12 Con't

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PRIMER AND PROBE SEQUENCES

Forward Primer: 5'-CAGAACGCTGTAGCTTCAAAAATCT -3' (SEQ ID NO:2471)

Reverse primer: 5'-TCAGAACCCTGTGATGAATCAACAG -3' (SEQ ID NO:2472)

Probe: 5'-TCTGCGTAGGCAATCC-3' (SEQ ID NO:2473) (5' labeled with

FAM; 3' labeled with NFQ-MGB)

Forward Primer: 5'-ACCAGAATGGAGGACGCAATG-3' (SEQ ID NO:2474)

Reverse primer: 5'-GCTGTGAACCAAGACGCAGTATTAT -3' (SEQ ID NO:2475)

Probe: 5'-ACCCCAAGGTTTACCC-3' (SEQ ID NO:2476) (5' labeled with

FAM; 3' labeled with NFQ-MGB)

FIG. 13

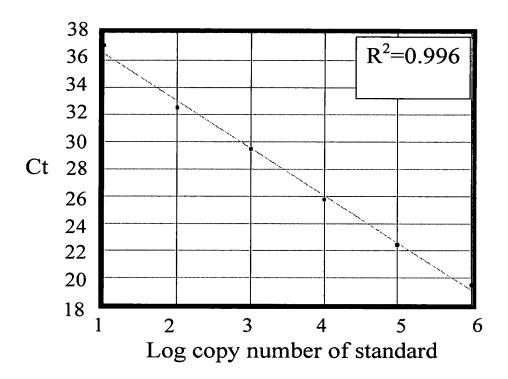


FIG. 14

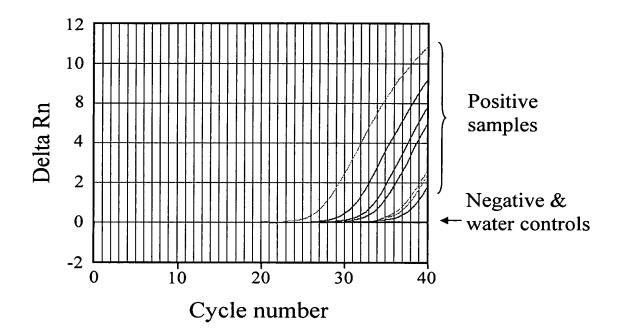


FIG. 15

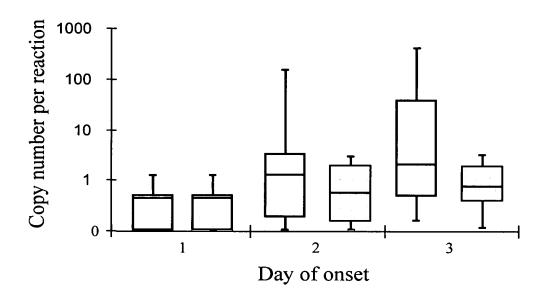


FIG. 16